January, 1957

the Petroleum Engineer

Vol. 29, No. 1
Part 2

INDEX to Vol. XXVIII

From January, 1956 to December, 1956, Inclusive

SUBJECT INDEX

TITLE OF ARTICLE AND AUTHOR	Page	Month
Automation Planning for Future Success, Don G. Mitchell	E-15	May
Electronics in Action	E-5	Sept.
Instruments and Control Equipment Directory	E-8	Sept.
API API Fosters Schooling of Personnel	E-3	Nov.
Communication Communication: Democracy Depends on Democratic Writing, Dennis Murphy	E-7	Jan.
Communications Technique	A-10	April
Communication: Twelve Tips on How to Dictate a Letter, Part 6, Dennis Murphy	E-13	June
Communication: How Can We Write Superior Business Letters? Dennis Murphy, Part 7	E-7	July 1
Communication: Creative Thinking in Business, Part 8, Dennis Murphy	E-7	Aug.
Communication: Ten Aids to Logical Thinking, Part 9, Dennis Murphy	E-7	Oct.
Another Aid to Communication, Maxine R. Hacke	E-20	Nov.
Communication: What Management Can Do To Improve It, Part 10, Dennis Murphy	E-12	Dec.
Speeding Up Office Communications	E-19	Dec.
Community The Classroom That Isn't	E-11	Aug.
Consumption World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
Decentralization Decentralization	E-44	Feb.
Dehydration A New Way to Dehydrate Gas, Robert A. Daugherty	E-13	Sept.
Depreciation Depreciation, John E. Arens	E-12	July 15
Drilling World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
Economics This Year of Prosperity—1956, Ernestine Adams	A-23	Jan.
Modern Genii of the American Motorist—Additives, Wayne E. Kuhn and John W. Hutcheson	E-1	Jan.
World Refining Capacity Nears 18 Million Barrels Crude Oil Daily, Ernestine Adams	E-10	Jan.
Don't Overpay Your Taxes	E-13	Jan.
The Perfect Price, Benjamin Fairless	A-10	Feb.
Letters From the Editor	A-10	March
Development and Peacetime Uses of Atomic Energy, Mardis C. Compton	E-18	March
World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
The Conference Table	A-10	May
Company Operations and Sales at All Time High in 1955, Ernestine Adams	E-2	May
Roadways of the World, F. A. C. Guepin	E-23	May
The Conference Table	A-10	June
Signposts of Better Management, H. H. Hinson	E-3	June
Future Oil Demands and Supply Trends, S. A. Swensrud	B-36	June
The Conference Table	A-10	July 1
Your First Oil or Gas Loan, E. M. Reed	E-3	July 1
Research Has Old Mysteries in a Spin, Ernestine Adams	E-3	July 15
What the Supply Store Can Do For You, Arthur W. McKinney	E-9	July 15
The Conference Table	A-10	Aug.
Oil and the Independent Operator, A. E. Herrmann	E-13	Aug.
Three Stories of Guatemala, Ernestine Adams	E-7	Nov.
Management and Tomorrow's Economy, Arthur S. Barron	E-3	Dec.
Oil Companies Bounce Back From Third Quarter Doldrums, Ernestine Adams	E-10	Dec.
Education Communication: Democracy Depends on Democratic Writing, Dennis Murphy	E-7	Jan.
Investment in Management	E-5	Feb.
The Philosophy of Reading, Ralph M. Besse	E-40	March
Unions: For Engineers	A-10	April
Attack on Shortage of Scientists and Engineers, Ernestine Adams	E-32	May
Communication: Twelve Tips on How to Dictate a Letter, Part 6, Dennis Murphy	E-13	June
You, Too, Can Give Help to Education	E-17	June
Communication: How Can We Write Superior Business Letters? Part 7, Dennis Murphy	E-7	July 1
Wanted: Executive Talent, James H. Pipkin	E-14	July 1
Communication: Creative Thinking in Business, Part 8, Dennis Murphy	E-7	Aug.
The Classroom That Isn't	E-11	Aug.
Education via Grants	E-25	Sept.
Communication: Ten Aids to Logical Thinking, Part 9, Dennis Murphy	E-7	Oct.
API Fosters Schooling of Personnel	E-3	Nov.
Management Course Limited to 25 Persons, Wilson J. Bentley	E-17	Nov.
Communication: What Management Can Do To Improve It, Part 10, Dennis Murphy	E-12	Dec.
Energy Industry Looks at Solar Energy	E-26	Feb.
Development and Peacetime Uses of Atomic Energy, Mardis C. Compton	E-18	March
Equipment European Competition for Oilfield Equipment, William T. Powell	B-176	April
Exploration World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
Financial The Calculated Future, L. E. Frensley	E-1	Feb.
The Conference Table	A-10	June
The Conference Table	A-10	July 1
Your First Oil or Gas Loan, E. M. Reed	E-3	July 1
The Conference Table	A-10	Sept.
Oil Companies Bounce Back From Third Quarter Doldrums, Ernestine Adams	E-10	Dec.
Fire What's the Best Way to Put Out a Fire?	E-14	Nov.
Foreign Insure Your Foreign Operations, William F. Cushman	E-18	May
Roadways of the World, F. A. C. Guepin	E-23	May
Troubles in Italian Oil Operations, Fernando de Mattia	E-7	June
Chile Pushes Production and Refinery Runs, John S. Barwick	E-5	July 1
Gas Processing Waste Gas to Be Recovered by New Pine Island Plant	E-30	Feb.
Gathering Systems Waste Gas to Be Recovered by New Pine Island Plant	E-30	Feb.
Geographical World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
Government Top-Flight Consultant Service	E-19	Feb.
Government Oil Business	A-10	April
Guatemala Three Stories of Guatemala, Ernestine Adams	E-7	Nov.
Health Industry and Health	E-24	Feb.
The Matter of the Heart, Kieffer Davis	E-37	March
The Worry Go Round, Henry B. Rollins	A-10	Nov.
The Too Common Cold, Dorothy Carlson	E-24	Nov.
Ten Commandments for Longevity, E. J. Murphy	E-20	Dec.
Instruments Electronics in Action	E-5	Sept.
Instruments and Control Equipment Directory	E-8	Sept.
Insurance Insure Your Foreign Operations, William F. Cushman	E-18	May
Internal Relations What Makes a Man Work, A. Q. Sartain	E-1	March
Unrest Among Engineers	E-6	March
Communication: How to Manage Sentences, Part 4, Dennis Murphy	E-10	March
Communication: Twelve Tips on How to Dictate a Letter, Part 6, Dennis Murphy	E-13	June
Communication: How Can We Write Superior Business Letters? Part 7, Dennis Murphy	E-7	July 1
Communication: Creative Thinking in Business, Part 8, Dennis Murphy	E-7	Aug.
Communication: Ten Aids to Logical Thinking, Part 9, Dennis Murphy	E-7	Oct.
Communication: What Management Can Do To Improve It, Part 10, Dennis Murphy	E-12	Dec.
Laws Italian Development Crippled by Laws, Fernando de Mattia	E-19	Sept.
Three Stories of Guatemala, Ernestine Adams	E-7	Nov.
Management Memo For Your Secretary, John Rasco	E-22	Dec.
Office Methods Punch Card System for the Petroleum Industry, Alan R. Krull	E-27	March
Organization Top-Flight Consultant Service	E-19	Feb.
Decentralization	E-44	Feb.
Personnel Communication: Democracy Depends on Democratic Writing, Dennis Murphy	E-7	Jan.
Investment in Management	E-5	Feb.
Communication, Dennis Murphy	E-33	Feb.
What Makes a Man Work, A. Q. Sartain	E-1	March
Unrest Among Engineers	E-6	March
Communication: How to Manage Sentences, Part 4, Dennis Murphy	E-10	March
The Philosophy of Reading, Ralph M. Besse	E-40	March
What Does Make a Man Work	A-10	April
Signposts of Better Management	E-3	June

Management Edition

TITLE OF ARTICLE AND AUTHOR	Page	Month
Communication: Twelve Tips on How to Dictate a Letter, Part 6, Dennis Murphy	E-13	June
You, Too, Can Give Help to Education	E-17	June
Communication: How Can We Write Superior Business Letters, Part 7, Dennis Murphy	E-7	July 1
Wanted: Executive Talent, James H. Pipkin	E-14	July 1
The Conference Table	A-10	Aug.
You Can Solve That Problem, Dallas Belcher	E-3	Aug.
Communication: Creative Thinking in Business, Part 8, Dennis Murphy	E-7	Aug.
Help Wanted: Scientists, Engineers, Alan T. Waterman	E-5	Sept.
You Need Leaderscope	E-22	Sept.
How to Treat the Old Girl	E-24	Sept.
Communication: Ten Aids to Logical Thinking, Part 9, Dennis Murphy	E-7	Oct.
Communication: What Management Can Do To Improve It, Part 10, Dennis Murphy	E-12	Dec.
Planning Planning for Future Success, Don G. Mitchell	E-15	May
Political Problems Oil and the Independent Operator, A. E. Herrmann	E-13	Aug.
Production Waste Gas to Be Recovered by New Pine Island Plant	E-30	Feb.
World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
Chile Pushes Production and Refinery Runs, John S. Barwick	E-5	July 1
Public Relations The Philosophy of Reading, Ralph M. Besse	E-40	March
How to Influence People	A-10	April
The Conference Table	A-10	May
Purchasing What the Supply Store Can Do for You, Arthur W. McKinney	E-9	July 15
Refining World Oil Hits Highest Peak, Ernestine Adams	E-1	April
Canadian Operations Hit a Hard Pace, H. G. Cochrane	E-22	April
Chile Pushes Production and Refinery Runs, John S. Barwick	E-5	July 1
Research How to Get the Best Results From Research	E-11	Feb.
Is Management for the Specialist, Gilbert C. Jacobus	E-3	Oct.
Resources of Mind and Material Are Combined in Ohio Oil Company's New Research Center in Denver, Colo.	E-12	Nov.
Safety What's the Best Way to Put Out a Fire?	E-14	Nov.
Statistics World Refining Capacity Nears 18 Million Barrels Crude Oil Daily, Ernestine Adams	E-10	Jan.
Company Operations and Sales at All Time High in 1955, Ernestine Adams	E-2	May
The Conference Table	A-10	June
Oil Companies Bounce Back From Third Quarter Doldrums, Ernestine Adams	E-10	Dec.
Storage Biggest in the Business, John Roberts	E-16	Nov.
Taxes Don't Overpay Your Taxes	E-13	Jan.
What You Should Know About Taxes, Fred H. Pennington	E-5	Dec.
Training Investment in Management	E-5	Feb.
Wanted: Executive Talent, James H. Pipkin	E-14	July 1
USSR Russia Makes Slow Progress in 'Second Baku', Charles L. Adams	E-13	Oct.

Drilling and Producing Edition

EXPLORATION

Areas of Promise What's Ahead for the Permian Basin? W. D. Thorn	B-21	Dec.
Southeastern New Mexico's Rich Oil and Gas Potential, Randall F. Montgomery	B-33	Dec.
Field Development Skelly Drills 132—Hits in 132, Andrew M. Rowley	B-79	Jan.
Field Studies Recent Developments in the Tejon-Grapevine Field, John P. Lavery, Jr.	B-31	Jan.
The Reinecke Field . . . Six Years Later, R. Leland Redline, Jr.	B-99	May
Foreign Papua Exploration Shows Promise	B-90	April
Three Stories of Guatemala, Ernestine Adams	E-7	Nov.
Maps Map Plotters Get "The Big Picture"	B-36	May
Drafting Department Gets 'New Look,' John Morris	B-83	Aug.
Offshore Prospecting "Electronic Navigation Device is Newest Aid to Oil Prospecting Over Water"	B-65	Feb.
Oil Finding Techniques "Geologists Are Talking About . . ."	B-39	Feb.
Transportation The Helicopter: New Tool of the Petroleum Industry? George E. Tarbox	B-47	June

DRILLING

Air Drilling Some Observations on Drilling With Air, Earl R. Bruno	B-21	Jan.
Air Vacuum Drilling Eliminates Lost Circulation, Dust	B-127	Feb.
Shutting Off Water Zones in Air Drilling, Wayne F. Hower, Joe Ramos, and H. J. Ayres	B-58	Oct.
Drilling With Air in the Rocky Mountains, N. J. Isto, S. G. Stiles, and S. C. Foster	B-100	Oct.
Design Application for Air Drilling Equipment, V. A. LaFave	B-138	Oct.
Air and Gas Drilling Air Drilling Practices in the Permian Basin, F. W. Smith and H. M. Rollins	B-48	Dec.
Blowout Control Variations in Mud Pit Level, E. J. Dower	B-151	Oct.
Boilers Combustion Chamber Improves Oil Field Boiler Operation, L. J. Cormack	B-142	July 1
Casing Casing String Design, Handling and Usage, J. W. Peret	B-33	Nov.
Coring Core Drilling on the Polar Ice Cap	B-106	Oct.
Costs Future Drilling and Operator-Contractor-Supplier Relations	B-25	May
Deep Drilling 80 Wells Go Below 15,000 Feet in 1955	B-21	Feb.
Deep Wells in Russia Find New Oil, Charles L. Adams	B-27	Feb.
World's Deepest Well Now at 22,570 Feet	B-29	Feb.
Fast Drilling Records Established for Deep Wildcat, Jerry Stumm	B-105	March
Deep Drilling Slated for Japan	B-99	July 1
Directional Drilling Is This the Answer to Pembina Drilling Problems? H. John Eastman	B-80	Feb.
Directories The Petroleum Engineer's "Spring" Drilling Rig Locator	B-36	March
Drilling Contractor Drilling Contractors Stress Industry Teamwork and Unity	B-62	Oct.
Drilling Costs Lowest Prices—1955 Drilling—Highest Cost, C. R. Graham	B-48	Feb.
Salaries and Supplies Get Contractors' Dollar	B-115	April
Use of a Bidsheet in Making Drilling Bids, W. K. Powell	B-117	Oct.
AAODC Ponders Low Reserves, High Costs, Industry Harmony, Personnel Deficits	B-90	Nov.
Drilling Engineer Drilling Technology School Enters Fifth Session	B-58	Nov.
Drilling Fundamentals Requirements for Drilling Contractors, Gene Graham	B-103	Jan.
Financing the Drilling Operation, W. K. Powell	B-109	Feb.
Fishing and Freeing Stuck Drill Pipe, E. E. Moore	B-54	April
Power Transmission, Allan B. Fredhold, Jr.	B-28	Aug.
Drilling Practices Straight AC Rig Solves Problems of Drilling in Residential Areas, E. S. Knox, and E. E. Hogwood, Jr.	B-38	Jan.
Hydraulics of Rotary Drilling, T. W. Keating, W. D. Clift, and John Cutrer	B-38	April
French Turbo-drill Rights Granted to American Firm, Jerry Stumm	B-139	July 1
20 Drilling Hints to Cut Costs	B-163	Oct.
Economics 80 Wells Go Below 15,000 Feet in 1955, Ernestine Adams	B-21	Feb.
Equipment Developments Drilling and Production Equipment Development Sets Fast Industry Pace	B-37	July 15
An Engineer's Look at Turbine Drilling, James A. Levelle	B-39	Oct.
Casing-Tong Instrumentation Comes of Age	B-52	Nov.
Fire Hazards Fire Prevention on a Drilling Rig, L. C. Horn	B-114	May
Fire Prevention Fire Prevention on a Drilling Rig, L. C. Horn	B-114	May
Fishing Fishing Isn't Fun	B-95	Feb.
Fishing Tools Fishing and Freeing Stuck Drill Pipe, E. E. Moore	B-54	April
Fishing Operations in Venezuela, R. W. Beck	B-95	April
Hauling Big Rig Moved in One Tour	B-32	March
Housing A Motel at Sea	B-120	April
Locator Drilling Rig Locator	B-26	July 1
Logging Planning a Logging Program, A. G. T. Weaver	B-51	Jan.
New Logging Tool—World's Smallest "Atom Smasher"	B-86	March
Electrical Resistivities of Oil Field Brines in South Arkansas and North Louisiana, Murphy E. Hawkins, and J. L. Moore	B-80	July 1
Electrical Resistivities of Oil Field Brines, Part 2, Murphy E. Hawkins and J. L. Love	B-104	Aug.
Interpretation of Radioactivity Logs in Gas-Drilled Wells, Dan H. McLendon	B-63	Oct.
Lost Circulation Lost Circulation Problems in Completions and Workovers, G. M. Purswell	B-80	June
Variations in Mud Pit Level, E. J. Dower	B-151	Oct.
Leak Detector Developed to Find Lost Circulation	B-152	Nov.
Maintenance Drilling Rig Maintenance Costs, Robert W. True	B-52	Oct.
Marine Drilling New Spud-Type Mobile Drilling Barge	B-21	March
The Scorpion Drills Well Number One, Donald M. Taylor	B-45	May
New Barge Added to Drilling Fleet	B-161	May
New Offshore Diesel-Electric Rig, Don Taylor	B-52	Aug.
New Idea in Drilling Barge Assembly, Robert C. Alexander, Jr.	B-80	Oct.
One of the Giants in Offshore Drilling Barges	B-21	Nov.
Kermac Commissions Unique Drilling Barge	B-146	Nov.
Muds Variations in Mud Pit Level, E. J. Dower	B-151	Oct.
Offshore Operations Wildcat 52 Miles at Sea in 103 Feet of Water	B-31	Feb.
Tidelands Ownership Question Stymies New Drilling, C. R. Graham	B-38	Aug.
Ship That Moves Sideways	B-68	Sept.
Power Transmission Power Transmission, Allan B. Fredhold, Jr.	B-28	Aug.
Hydraulic Couplings and Torque Converters in Rig Drives	B-71	Oct.
Pumps, Mud At 35.3 Lb Per Input Horsepower High-Speed Pump is Chain Driven	B-50	Jan.
Taking the Pulse of Mud Pumps	B-35	May
Research Basic Research Shows Effects of Drilling Fluid on Penetration of Rock Bits	B-85	Jan.
Toward More Research	B-107	Jan.
Rigs Latest Ideas in Rig Hookups, Jerry Stumm	B-30	Nov.
Rig Design Portable Rig Equipped for East Moves in Shallow Drilling	B-140	July 1
Rig Records Standard Daily Drilling Reports Form Approved	B-162	May
Safety Safety in Rigging Up and Tearing Down, J. L. Muir	B-113	Oct.
Techniques Fishing and Freeing Stuck Drill Pipe, E. E. Moore	B-54	April
Fishing Operations in Venezuela, R. W. Beck	B-95	April
Transportation Texpet Moves in Rig on Tracks	B-36	April
The Helicopter: New Tool of the Petroleum Industry? George E. Tarbox	B-47	June
240 Tons Equipment Flown to Jungle Wildcat	B-60	Aug.
Tubular Goods Aluminum Pipe in Oil Field Operations	B-116	Aug.
Casing and Tubing—Enough for Tomorrow's Drilling? H. W. Ladd	B-84	Dec.
USSR Russia Makes Slow Progress in 'Second Baku,' Charles L. Adams	E-13	Oct.
Wire Rope Proper Wire-Rope Slip-Length Determination	B-66	Jan.
Ideas at Work Adjustable Support Holds Dog House at Rig Floor Level	B-175	Oct.

TITLE OF ARTICLE AND AUTHOR	Page	Month
Boomer Attached to Front of Truck Aids Rigging Up	B-177	Oct.
Cantilever Post Serves as Compressed Air Chamber	B-168	Oct.
Cheater for Stubborn Valves	B-177	April
Cleats Increase Utility of Pipe Rack	B-173	March
Collapsible Ramp Facilitates Tractor Loading	B-175	Oct.
Complete Skid Mounted Rig	B-175	Oct.
Compact Unit Takes Up Slack in Well Logging Unit	B-173	Oct.
Door of Mud House Protects Hopper	B-173	Oct.
Drum Mounted on Workover Rig Keeps Brakes Cool	B-177	Oct.
Fuel and Water Tank Moves in One Load	B-163	Oct.
Hinged Cover Allows Rat Hole to Be Used Also as Mouse Hole	B-167	Oct.
Hinged Side Panels Protect Air Compressor	B-167	Oct.
Make Enlarged Governor Dial That Can Be Seen Long Distance	B-177	April
Metal Box Over Shear Relief Valve Acts as Safety Shield	B-176	Oct.
Motorized Valve Maintenance Cuts Cost	B-175	Aug.
Mount Paper Towel Rack in Trunk of Service Car	B-177	April
Mud Tanks Made Old Vessel	B-176	April
Muffler Mounted on Engine Radiator	B-175	Aug.
Neat Hat Racks Made From Welding Rods	B-173	Oct.
Pipe Frame Completely Encloses Rotary Hose	B-176	Oct.
Pipe Trailer Used to Move Bailers and Stems	B-173	Oct.
Pit Level Indicator Placed at Driller's Station	B-168	Oct.
Portable Cattle Guards Can Eliminate Right-of-Way Troubles	B-176	April
Pots on Truck Bumper Big Saver	B-174	Aug.
Pull Rods Power Double Acting Pump	B-173	March
Quick Dis-Connect Fence Around Tank Battery	B-177	April
Rotary Hose Covering	B-167	Oct.
Skid Mounted Derrick Floor Speeds Workover Work	B-163	Oct.
Sliding Ramp for Offshore Work	B-173	Oct.
Support and Lock for Dog House Window	B-163	Oct.
Tool Bin Supports Dog House	B-174	Aug.

PRODUCTION

TITLE OF ARTICLE AND AUTHOR	Page	Month
Acidizing How to Calculate Friction Losses During Well Treatments, Robert Wade Brown	B-123	Oct.
Automatic Production Controls New Production Programming System, James A. LeVelle	B-30	April
Oil Field Automation Takes Another Step Ahead	B-73	April
Automatic Lease Production System, R. L. Geer and D. C. Meyers	B-49	May
Oil Run Continuously from Stock Tanks to Pipe Line	B-90	May
BS&W Control in Automatic Transfer Custody, Howard J. EnDean	B-24	Nov.
New Auto-Pneumatic Lease Programming System, Donald M. Taylor	B-28	Dec.
Boilers Combustion Chamber Improved Oil Field Boiler Operation, L. J. Cormack	B-142	July 1
Casing Casing String Design, Handling and Usage, J. W. Peret	B-33	Nov.
Completion Practices Permanent-Type Dual Completions, G. H. Tausch and John W. Kenneday	B-24	March
Production Fundamentals—Selecting a Well Completion Program, James A. LeVelle	B-38	May
Modified Multiple-Well Completion, Bob L. Crain and Burrell G. Taylor	B-91	May
Production Fundamentals—Multiple-Zone Completions, Marshall C. Turner and Forrest C. Morgan	B-38	June
New Triple Completion Technique, Royal W. Reiss	B-21	July 1
Problems in Completing High-Pressure Gas Wells, J. M. Tharp and J. E. Bailey	B-21	Aug.
Considerations for Single Zone Completions, C. L. Rawe	B-40	Aug.
Controls Selecting Control Valves, Herbert S. Kindler	B-88	March
New Production Programming System, James A. LeVelle	B-30	April
Control Equipment Standard Layouts for Oil Field Pump Controls, Herbert S. Kindler	B-96	Nov.
Corrosion Radioactivity Method Evaluates Rust Coatings	B-100	Jan.
Squeezing Inhibitor into Formation, Rupert H. Poetker and John D. Stone	B-29	May
How to Interpret Tubing Caliper Surveys, Jack T. Martin	B-31	June
Corrosion Protection of Oil Well Casing, W. C. Koger	B-64	Aug.
Dehydration A New Way to Dehydrate Gas, Robert A. Daugherty	E-13	Sept.
Education and Training New Production School Graduates First Class	B-81	Jan.
Equipment Selecting Control Valves, Herbert S. Kindler	B-88	March
New Production Programming System, James A. LeVelle	B-30	April
Equipment Developments Drilling and Production Equipment Development Sets Fast Industry Pace	B-37	July 15
Field Development Skelly Drills 132—Hits in 132, Andrew M. Rowley	B-79	Jan.
Field Studies Recent Developments in the Tejon-Grapevine Field, John P. Lavery, Jr.	B-31	Jan.
Foreign Troubles in Italian Oil Operations, Fernando de Mattia	E-7	June
Fracturing Technical Tips on Selecting Fracturing Fluids, J. K. Henderson	B-27	Jan.
New Fracturing Acidizing Pumper Remote Controlled Engine	B-97	Jan.
Deep Well Fracturing, in Headlee Devonian, H. D. Hansen, W. L. Tinslar, and H. E. Wendt	B-25	June
Acid Spearhead Helps to Increase Fracturing Efficiency, J. K. Henderson	B-74	Aug.
Well Stimulation by Fracturing, M. J. Kaufman	B-53	Sept.
250,000 Gallons of Water Used in Biggest Fracture Job	B-76	Oct.
How to Calculate Friction Losses During Well Treatments, Robert Wade Brown	B-123	Oct.
Newest Aid to Multi-Stage Fracturing, J. E. Kastrop	B-40	Dec.
Fresh Water Fracturing in the Permian Basin, S. J. Martinez and R. E. Hurst	B-68	Dec.
Gas Compression Design Considerations for Small Unattended Field Gas Compressors, Millard L. Hipple	B-110	Nov.
Gas Injection New Injection Method Affords Total Oil Recovery, N. J. Clark, W. P. Schultz, H. M. Shearin	B-45	Oct.
Gas Lift Down-Hole Chambers Increase Gas-Lift Efficiency, Part 1, H. W. Winkler and George F. Camp	B-87	June
Down-Hole Chambers Increase Gas-Lift Efficiency, Part 2, H. W. Winkler and George F. Camp	B-91	Aug.
Calculating a Gas-Lift Installation, William B. Adair	B-41	Nov.
Gas Measurement How to Correct Orifice Plate Errors Due to Pulsative Gas Flow, Charles Newman	B-73	Feb.
Logging Planning a Logging Program, A. G. T. Weaver	B-51	Jan.
Reservoir Evaluation by Log Interpretation, Charles R. Glanville	B-50	Feb.
New Logging Tool—World's Smallest "Atom Smasher"	B-86	March
Electrical Resistivities of Oil Field Brines in South Arkansas and North Louisiana, Murphy E. Hawkins and J. L. Moore	B-80	July 1
Electrical Resistivities of Oil Field Brines, Part 2, Murphy E. Hawkins and J. L. Love	B-104	Aug.
Interpretation of Radioactivity Logs in Gas-Drilled Wells, Dan H. McLendon	B-63	Oct.
Measurement and Testing Productivity Index of Pumping Wells, Herbert D. Miller and James R. Henderson	B-35	Jan.
Paraffin Control Improved Unit Aids Paraffin Control	B-66	Dec.
Piping Buckling of Oil Well Piping, C. A. Bouman	B-60	June
Producing Rates Placing a Well on Production, James A. Perkins, Jr.	B-102	July 1
Production Fundamentals Formation of Oil and Gas Reservoirs, Norman J. Clark and H. M. Shearin	B-21	April
Selecting a Well Completion Program, James A. LeVelle	B-38	May
Multiple-Zone Completions, Marshall C. Turner and Forrest C. Morgan	B-38	June
Placing a Well on Production, James A. Perkins, Jr.	B-102	July 1
Considerations for Single Zone Completions, C. L. Rawe	B-40	Aug.
Casing String Design, Handling and Usage, J. W. Peret	B-33	Nov.
Proration Texas Reviews Its Shutdown-Exempt Fields, C. R. Graham	B-79	March
Pumping Capacitors Pay Off in Electrical Beam Pumping, Roger K. Owen	B-25	Jan.
First Successful Installation in Saskatchewan Pumping Dual Wells in Canada, Jack Menneer	B-69	Jan.
Desirable Pumping Unit Speeds, Charles L. Coffman	B-86	Aug.
80-Foot Pump Solves Water Production Problem	B-102	Nov.
Are You Sure You're Getting Peak Pumping Efficiency? C. J. Merryman and Bennie L. Franks	B-93	Dec.
Research Toward More Research	B-107	Jan.
New Injection Method Affords Total Oil Recovery, N. J. Clark, W. P. Schultz, and H. M. Shearin	B-45	Oct.
Magnolia Begins Lab at Dallas Center	B-138	Nov.
Reserves Oil Resources of the United States, Paul D. Torrey	B-116	Feb.
Stripper Production and Reserves on Increase	B-112	May
Reservoir Engineering A Simplified Method of Calculating Behavior of Closed Reservoirs, Part 3, W. C. Sturdivant, Jr.	B-58	Jan.
Sweep Efficiencies of Vertically Fractured Five-Spot Patterns, Paul B. Crawford, James M. Pinson, Jack Simmons, and Bobby L. Landrum	B-95	March
Formation Evaluation of Oil and Gas Reservoirs, Norman J. Clark and H. M. Shearin	B-21	April
Predicting Water Flood Behavior, William C. Hauber and D. E. Menzie	B-105	April
The Analysis of Problem Wells, Norman J. Clark and W. P. Schultz	B-30	Sept.
The Unsteady-State Behavior of Linear Gas Storage Reservoirs, Joseph E. Warren	B-60	Nov.
Safety Safe Practices in Workover Operations, Don A. Klemme	B-134b	Sept.
Secondary Recovery Magnitude of Fluid Injection Operations in the U. S., Albert E. Sweeney, Jr.	B-120	Feb.
Storage They Use to Blow Their Tops, Phillip E. Rose	B-40	July 15
Tank Batteries Handling Heavy, Sand-Laden Crude, Jerry Stumm	B-102	Feb.
Design Considerations for Gas Fired Field Processing Equipment, Edwin C. Young	B-122	Nov.
Thermal Oil Recovery New Idea in Thermal Oil Recovery, Richard Garbus	B-83	April
Transportation The Helicopter: New Tool of the Petroleum Industry? George E. Tarbox	B-47	June
Treating Waste Heat Treats Oil at Isolated Lease, Peck Hardee, Jr.	B-56	Dec.
Tubular Goods First Plastic Flowline	B-112	March
Aluminum Pipe in Oil Field Operations	B-116	Aug.
Casing and Tubing—Enough for Tomorrow's Drilling? H. W. Ladd	B-84	Dec.
USSR Russia Makes Slow Progress in 'Second Baku,' Charles L. Adams	E-13	Oct.
Water Flooding Elements of Water Injection, Part 6, J. Randolph Buck	B-44	Jan.
Elements of Water Injection, Part 7, J. Randolph Buck	B-85	Feb.
Elements of Water Injection, Part 8, J. Randolph Buck	B-121	March
Predicting Water Flood Behavior, William C. Hauber and D. E. Menzie	B-105	April
The Future of Water Flooding in the U. S., Albert E. Sweeney, Jr.	B-77	May
Elements of Water Injection, Part 9, J. Randolph Buck	B-84	May
A Different Approach to Waterflooding, K. Davison and F. T. Whittinghill, Jr.	B-147	June
Measuring Quality of Injection Waters, Martin Felsenthal and B. L. Carlberg	B-53	Nov.
Well Completions Permanent Type Completions and Wireline Workovers, Gilbert H. Tausch and Price McDonald	B-39	Sept.
Parallel Strings and Pumps Run in 5½-in. Casing, Thomas C. Aitken	B-85	Sept.
Well Servicing An Approach to Analyzing Ailing Wells, Raoul Bechaneourt	B-24	Sept.
Wire Line Operations Wire Line Truck of the Future Now in Service	B-97	Oct.
Workovers Horizons Unlimited in Well Workovers, Don Taylor	B-21	Sept.
Permanent Type Completions and Wireline Workovers, Gilbert H. Tausch and Price McDonald	B-39	Sept.
Planning and Supervising Workover Jobs, J. N. Pedersen	B-73	Sept.
Evaluation of Workovers . . . Before and After, J. J. Arps	B-97	Sept.
Workover Problems and Their Solutions, C. J. Rodgers	B-107	Sept.
Unusual Methods Pay Off—Sometimes, T. J. McIntyre	B-129	Sept.
Safe Practices in Workover Operations, Don A. Klemme	B-134b	Sept.
Unique Tools and Methods Used in Gas Well Workovers, Sidney S. Galpin and Palmer H. Montgomery	B-140	Sept.
Multiple Zone Workovers, Royal W. Reiss	B-156	Sept.

The Refining Engineer

REFINING

Additives Modern Genii of the American Motorist—Additives, Wayne E. Kuhn and John W. Hutcheson. E-1 Jan.
Addition Agents for Lubricants, Part 1, C. J. Boner C-53 March
Sludge Formation and Additives Action, D. T. Rogers, W. W. Rice, and F. L. Jonach C-45 April
Addition Agents for Lubricants, Part 2, C. J. Boner C-28 May
Boron—New Improvement Agent, E. C. Hughes and E. O. Hook C-10 July 1
Addition Agents for Lubricants, Part 3, C. J. Boner C-17 Aug.
Improving Fuel Oil Through Addition Agents, W. deB. Bertolette and J. D. Rogers C-41 Nov.
Volatility, Viscosity and V. I. Improvers Affect Oil Consumption Strongly, R. L. Overcash, W. Hart, and D. J. McClure C-46 Nov.

Analytical Methods X-Ray Answers Knotty Refining Questions, Vern W. Palen C-7 Jan.
Determining True Vapor Pressures, William J. Tomsic C-29 Jan.
Determination of CO_2 in Steam and Condensate, Maxey Brooke C-22 March
Jet Fuel Tester Adopted C-76 March
Analysis of Mono- and Di-Sulfides in Gasoline, Charles W. Rippie C-18 April
Plant Aid: Nomograph for Sensitivity of Hydrocarbons and Gasolines, George E. Mapstone C-46 June
New Viscosity Index En Route to Adoption, C. M. Larson and W. C. Schwaderer C-11 June
New Viscosity Index En Route to Adoption: Part 2, C. M. Larson and W. C. Schwaderer C-12 Aug.
Needed: A New Knock Yardstick? C. J. Domke, N. D. Esau, D. S. Gray, and H. R. Taliaferro C-38 Sept.
Road Ratings With a Chassis Dynamometer, P. E. Mizelle, J. C. Porter, and A. R. Rescorla C-42 Sept.
Road Ratings Obtained in a Single-Cylinder Engine, E. M. Barber, H. I. Wilson, and T. H. Randall C-50 Sept.

Asphalt Refining Fundamentals—Process Division: Refining Methods for Waxes, Asphalts, Greases and Compounded Oils: Chapter III, V. A. Kalichevsky C-16 June

Catalysts Recent Progress in Petroleum Conversion Catalysts, Vanderveer Voorhees C-11 March
Molybdenum in Petroleum Refining, Part 1, Ben H. Danziger and J. Richard Milliken C-3 Nov.
Molybdenum in Petroleum Refining, Part 2, Ben H. Danziger and J. Richard Milliken C-12 Dec.

Catalytic Cracking Two-Stage Fluid Cracker—New Model, J. D. Heldman, F. Kunreuther, J. A. Marshall, and C. A. Rehbein C-6 June
Refining Fundamentals—Process Division: Catalytic Cracking and Reforming, Chapter VII, Arch L. Foster. C-14 July 1
Furnace-In-Sky Sets Pattern for Vessel Stress Relief, P. C. Arnold C-23 Aug.
Pre-Planning Cuts Downtime for Unscheduled Turnaround C-10 Dec.

Catalytic Reforming Refining Fundamentals—Process Division: Catalytic Cracking and Reforming, Chapter VII, Arch L. Foster C-14 July 1
What Happens in a Cat Reformer, G. F. Eisele and R. Smith C-37 Oct.
Molybdenum in Petroleum Refining, Part 1, Ben H. Danziger and J. Richard Milliken C-3 Nov.
What to Do With Hydrogen C-28 Nov.
Midget Cat Reformer Upgrades Light Natural Gasoline C-9 Dec.
Molybdenum in Petroleum Refining, Part 2, Ben H. Danziger and J. Richard Milliken C-12 Dec.
Stopping Sulfur Corrosion in a Catalytic Reformer, R. W. Neumaier and C. M. Schillmoller C-33 Dec.

Coking Fluid Coker: Mechanical Design Aspects, R. H. Maass and E. J. Newchurch C-36 April

Communications Radio's Answer to Refinery Communication Needs, Joseph A. White C-24 March
Automatic Tube System, Carroll Hennessy C-17 Sept.

Compressors Refining Fundamentals—Mechanical Division: Seals and Sealing Systems for the Centrifugal Compressor, Donald F. Crego C-17 Feb.
Pulsation Control in Compressor Plants, C. Newman and N. H. Moerke C-34 April
Refining Fundamentals—Mechanical Division: II. Selecting Equipment, E. Mechanical Shaft Seals and Their Pressure-Velocity Limitations, Ralph E. Morgan and Herbert B. Hummer C-34 Nov.

Construction World Refining Capacity Nears 18 Million Barrels Crude Oil Daily, Ernestine Adams E-10 Jan.
Furnace-In-Sky Sets Pattern for Vessel Stress Relief, P. C. Arnold C-23 Aug.
New Plant Construction—Planned and Underway C-24 Sept.

Crudes California Crudes Show Great Variation in Properties, C. T. Brown C-9 Jan.
Properties of Wyoming Crudes, J. J. Pope and R. R. Wilber C-19 Nov.

Design—Mechanical Refining Fundamentals—Mechanical Division: Plant Layout Principles are Fundamental Factors in Fire Protection, Safety, Don Attaway C-16 Jan.
Refining Fundamentals—Mechanical Division: Seals and Sealing Systems for the Centrifugal Compressor, Donald F. Crego C-17 Feb.
Refining Fundamentals—Mechanical Division: Mechanical Design of Tubular Process Heaters, Part 1, L. A. Mekler C-15 March
Refining Fundamentals—Mechanical Engineering: Mechanical Design of Tubular Process Heaters, Part 2, L. A. Mekler C-20 April
Fluid Coker: Mechanical Design Aspects, R. H. Maass and E. J. Newchurch C-36 April
Pressure Drop of Gas-Liquid Mixtures in Horizontal Pipes, J. M. Chenoweth and M. W. Martin C-42 April
Refining Fundamentals—Mechanical Division: II. Selecting Equipment, D. Mechanical Design of Process Tubular Heaters, Part 3, L. A. Mekler C-26 June
Selection of Materials for Refinery Construction, Martin L. Michaud C-19 July 1
Refining Fundamentals—Mechanical Division: Chapter V, Refinery Layout and Design, W. C. Woods C-31 July 1
Some Cases of Stress Due to Temperature Gradient, D. J. Bergman C-45 July 1
Hydraulic Drive for Aerial Cooler Fans, D. E. Bumgardner C-8 Sept.
Direct-Contact Gasoline Condenser, Shao-Chio Hu C-12 Nov.
Practical Economics for Refinery Mechanical Engineers, Thad S. Fennema C-3 Dec.

Design—Process Methods for Refining Light Petroleum Distillates and Fuels, V. A. Kalichevsky C-49 Jan.
Mathematical Engineering as Applied to Design and Operations, J. R. Cobb and R. L. McIntire C-6 May

Desulfurization Desulfurizing by Hydrofining "Down-Under," D. A. Sutherland and F. W. Wheatley C-37 March
World's First Hydrodesulfurizer, Walter Sekules C-17 Oct.
What to Do With Hydrogen C-28 Nov.
Molybdenum in Petroleum Refining, Part 1, Ben H. Danziger and J. Richard Milliken C-3 Nov.
Molybdenum in Petroleum Refining, Part 2, Ben H. Danziger and J. Richard Milliken C-12 Dec.

Economics Jet Engines and Their Probable Future, William P. Barnes C-41 Aug.

Equipment Refiner's "Tools of the Trade," Arch L. Foster C-9 July 15
Electrical System in New Petrochemical Plant, R. C. Berger C-3 Aug.
Refining Fundamentals—Mechanical Division: II Selecting Equipment C-26 Aug.
Jet Engines and Their Probable Future, William P. Barnes C-41 Aug.
Refining Fundamentals—Mechanical Division: Selecting Equipment—Tubular Heaters, Air Preheaters, Tube Cleaning, Section 5, L. A. Mekler C-28 Oct.
Refining Fundamentals—Mechanical Division: II. Selecting Equipment, E. Mechanical Shaft Seals and Their Pressure-Velocity Limitations, Ralph E. Morgan and Herbert B. Hummer C-34 Nov.

Foreign Developments Largest Indian Refinery on Stream, C. Morgan Jones C-21 Jan.
Iraq's First Daura Refinery, Nadhim Al-Pachachi, et al. C-11 April
Troubles in Italian Oil Operations, Fernando de Mattia E-7 June

Fuel Products Refining Fundamentals—Technology Division: Methods for Refining Light Petroleum Distillates and Fuels, V. A. Kalichevsky C-49 Jan.
Residual Fuel Oil—Where is it Going, Arch L. Foster C-6 March
Jet Fuel Tester Adopted C-76 March
Future Use of Lower Quality Diesel Fuels, R. W. Seniff and F. A. Robbins C-47 May
Anti-Knock Rating is Improved Mechanically, O. Enoch and J. M. Chandler C-40 May
East Coast Shows Highest Octane Number Levels C-54 May
How Many "Custombuilt" Motor Fuels, Arch L. Foster. C-3 June
New Viscosity Index En Route to Adoption, C. M. Larson and W. C. Schwaderer C-11 June
New Viscosity Index En Route to Adoption: Part 2, C. M. Larson and W. C. Schwaderer C-12 Aug.
Refining Fundamentals—Process Division: Refining Methods for Waxes, Asphalts, Greases and Compounded Oils: Chapter III, V. A. Kalichevsky C-16 June
The Knocking Behavior of Fuels and Engines, R. V. Kerley and D. W. Thurston C-40 June
Plant Aid: Nomograph for Sensitivity of Hydrocarbons and Gasolines, George E. Mapstone C-46 June
Boron—New Improvement Agent, E. C. Hughes and E. O. Hook C-10 July 1
Explosive Characteristics of Aviation Gasoline—Analytical Methods, Donald J. Babicz and Henry G. White C-41 July 1
Refining Fundamentals—Process Division: Petroleum Products—Nature and Properties, Chapter 12, V. A. Kalichevsky C-20 Sept.
Improving Fuel Oils Through Addition Agents, W. deB. Bertolette and J. D. Rogers C-41 Nov.
Refining Fundamentals—Process Division: Chapter XIII. Gasoline: Motor Fuels, V. A. Kalichevsky C-24 Dec.
Present Fuels Not on Way Out Say SAE Leaders C-47 Dec.

Greases New Grease for High Temperature—Ultra High Speed Operation, J. Perry Dilworth, James R. Roach. C-8 Feb.
Structure of Lubricating Grease Thickeners, A. L. McClellan and J. Cortes, Jr. C-49 May
Refining Fundamentals—Process Division: Refining Methods for Waxes, Asphalts, Greases and Compounded Oils: Chapter III, V. A. Kalichevsky C-16 June

Heaters Refining Fundamentals—Mechanical Division: Mechanical Design of Tubular Process Heaters, Part 1, L. A. Mekler C-15 March
Refining Fundamentals—Mechanical Engineering: Mechanical Design of Tubular Process Heaters, Part 2, L. A. Mekler C-20 April
Refining Fundamentals—Mechanical Division: II. Selecting Equipment, D. Mechanical Design of Process Tubular Heaters, Part 3, L. A. Mekler C-26 June
Refining Fundamentals—Mechanical Division: Selecting Equipment—Mechanical Design of Process Tubular Heaters, Part 4, L. A. Mekler C-26 Aug.

TITLE OF ARTICLE AND AUTHOR	Page	Month
Heat Exchange Equipment Refining Fundamentals—Mechanical Division: Selecting Equipment—Tubular Heaters, Air Preheaters, Tube Cleaning, Section 5, L. A. Mekler	C-28	Oct.
Heat Exchanger Cleaning System, R. A. Dyer and C. A. Faulconer	C-9	Nov.
Direct-Contact Gasoline Condenser, Shao-Chio Hu	C-12	Nov.
Instrumentation and Control Level Measurements in Granular Solids, Francis S. Becker	C-23	Feb.
Electronic Instrumentation for Atlantic Catformer, F. C. Somers and R. C. Fuhs	C-30	Feb.
Electronic Process Control System, Karl W. Peterson	C-46	March
'Tom Thumb' Guides Operations	C-66	March
Petrochemicals Look for New Instruments, R. G. Marvin, W. L. Stuart, G. W. Lunsford, and E. E. Ludwig	C-46	Sept.
Lubricating Oil and Waxes Refining Fundamentals—Technology Division: Refining of Lubricating Oils, V. A. Kalichevsky	C-11	Feb.
Addition Agents for Lubricants, Part 1, C. J. Boner	C-53	March
Refining Fundamentals—Technology Division: Refining of Lubricating Oils, Chapter X, Section II, V. A. Kalichevsky	C-70	March
Sludge Formation and Additives Action, D. T. Rogers, W. W. Rice, and F. L. Jonach	C-45	April
Refining Fundamentals—Technology Division: Refining of Lubricating Oils, Section III, V. A. Kalichevsky	C-20	May
Addition Agents for Lubricants, Part 2, C. J. Boner	C-28	May
Refining Fundamentals—Process Division: Refining Methods for Waxes, Asphalts, Greases and Compounded Oils: Chapter III, V. A. Kalichevsky	C-16	June
Volatility, Viscosity and V. I. Improvers Affect Oil Consumption Strongly, R. L. Overcash, W. Hart, and D. J. McClure	C-46	Nov.
Refining Fundamentals—Mechanical Division: Chapter II. Selecting Equipment, L. Planned Refinery Lubrication—A Management Opportunity, V. M. Stanich and G. W. Pusack	C-16	Dec.
Maintenance When Does a Turnaround Begin, R. R. Warne and W. B. Black, Jr.	C-6	April
Ultrasonics for Inspection and Cleaning, Dwight J. Evans	C-3	July 1
Two-Step Insulation Reduces Maintenance Down-Time, Robert L. Ellis	C-53	July 1
Taming Wild Waste Water, Gordon W. Brown and James E. Sublett	C-3	Sept.
Refining Fundamentals—Mechanical Division: Selecting Equipment—Tubular Heaters, Air Preheaters, Tube Cleaning, Part 5, L. A. Mekler	C-28	Oct.
Heat Exchanger Cleaning System, R. A. Dyer and C. A. Faulconer	C-9	Nov.
Pre-Planning Cuts Downtime for Unscheduled Turnaround	C-10	Dec.
Refining Fundamentals—Mechanical Division: Chapter II. Selecting Equipment, L. Planned Refinery Lubrication—A Management Opportunity, V. M. Stanich and G. W. Pusack	C-16	Dec.
Stopping Sulfur Corrosion in a Catalytic Reformer, B. W. Neunmier and C. M. Schillmoller	C-33	Dec.
Mathematics Mathematical Engineering as Applied to Design and Operations, J. R. Cobb and R. L. McIntire	C-6	May
Plant Aid: Nomograph for Sensitivity of Hydrocarbons and Gasolines, George E. Mapstone	C-46	June
Motors Hydraulic Drive for Aerial Cooler Fans, D. E. Bumgardner	C-8	Sept
Plant Operations Methods for Refining Light Petroleum Distillates and Fuels, V. A. Kalichevsky	C-49	Jan.
Recovery of Refining Slop Oil by Filtration, Antoine F. Alciatore	C-9	Aug.
Pollution Recovery of Refinery Slop Oil by Filtration, Antoine F. Alciatore	C-9	Aug.
Taming Wild Waste Water, Gordon W. Brown and James E. Sublett	C-3	Sept.
What Causes Smog? What Remedies Have We? W. L. Faith	C-3	Oct.
Goldfish Are Good Sanitary Inspectors, J. E. Miller and G. F. Ullrich	C-9	Oct.
Keeping 'Clouds' From the Horizon	C-13	Oct.
Great Strides Made in Smoke and Fumes Research, L. C. Kemp, Jr.	C-14	Oct.
Water Purification at Toledo Refinery, Harry F. Elkin	C-38	Oct.
Biological Oxidation of Phenolic Waste Water, A. D. McRae, William K. Ross, and Allan A. Sheppard	C-44	Oct.
Processes—General Refining Fundamentals—Technology Division: Methods for Refining Light Petroleum Distillates and Fuels, V. A. Kalichevsky	C-49	Jan.
Chemists Charting Petroleum's Course—A Review	C-3	May
Pumps Seals and Sealing Systems for the Centrifugal Compressor, Donald F. Crego	C-17	Feb.
Hydraulic Drive for Aerial Cooler Fans, D. E. Bumgardner	C-8	Sept.
Refining Fundamentals—Mechanical Division: II Selecting Equipment, E. Mechanical Shaft Seals and Their Pressure-Velocity Limitations, Ralph E. Morgan and Herbert B. Hummer	C-34	Nov.
Refining Fundamentals Plant Layout Principles Are Fundamental Factors in Fire Protection, Safety, Don Attaway	C-16	Jan.
Technology Division: Methods for Refining Light Petroleum Distillates and Fuels, V. A. Kalichevsky	C-49	Jan.
Technology: Refining of Lubricating Oils, V. A. Kalichevsky	C-11	Feb.
Seals and Sealing Systems for the Centrifugal Compressor, Donald F. Crego	C-17	Feb.
Mechanical: Mechanical Design of Tubular Process Heaters, Part 1, L. A. Mekler	C-15	March
Technology: Refining of Lubricating Oils, Chapter X, Section II, V. A. Kalichevsky	C-70	March
Technology: Refining of Lubricating Oils, Chapter X Section II, V. A. Kalichevsky	C-70	March
Mechanical Engineering: Mechanical Design of Tubular Process Heaters, Part 2, L. A. Mekler	C-20	April
Technology: Refining of Lubricating Oils, Section III, V. A. Kalichevsky	C-20	May
Process Division: Refining Methods for Waxes, Asphalts, Greases and Compounded Oils: Chapter III, V. A. Kalichevsky	C-16	June
II. Selecting Equipment. D. Mechanical Design of Tubular Process Heaters, Section 3, L. A. Mekler	C-26	June
Process Division: Catalytic Cracking and Reforming: Chapter VII, Arch L. Foster	C-14	July 1
Mechanical Division: Chapter V. Refinery Layout and Design, W. C. Woods	C-31	July 1
Mechanical Division: II Selecting Equipment	C-26	Aug.
Process Division: Petroleum Products—Nature and Properties, Chapter 12, V. A. Kalichevsky	C-20	Sept.
Mechanical Division: Selecting Equipment—Tubular Heaters, Air Preheaters, Tube Cleaning, Section 5, L. A. Mekler	C-28	Oct.
Mechanical Division: II. Selecting Equipment, E. Mechanical Shaft Seals and Their Pressure-Velocity Limitations, Ralph E. Morgan and Herbert B. Hummer	C-34	Nov.
Mechanical Division: Chapter II. Selecting Equipment L. Planned Refinery Lubrication—A Management Opportunity, V. M. Stanich and G. W. Pusack	C-16	Dec.
Process Division: Chapter XIII. Gasoline: Motor Fuels, V. A. Kalichevsky	C-24	Dec.
Safety and Fire Protection Refining Fundamentals—Mechanical Division: Plant Layout Principles are Fundamental Factors in Fire Protection, Safety, Don Attaway	C-16	Jan.
Chemical Plant Safety, Elmer Saxon	C-6	Feb.
Shale Oil Union Oil Company Shale Oil Plant, John R. Pownall	C-50	July 1
Statistics World Refining Capacity Nears 18 Million Barrels Crude Oil Daily, Ernestine Adams	E-10	Jan.
New Plant Construction—Planned and Underway	C-24	Sept.
Storage Biggest in the Business, John Roberts	E-16	Nov.
"Sea-Going" Storage Tanks to New Berth, C. Morgan Jones	C-47	Dec.
Ideas at Work Add Gin-Pole to Pick-up or Bob-Tail Maintenance Truck	C-77	March
A Handy Way to Store Welding Rods	C-57	May
Cheater for Stubborn Valves	C-78	March
Cleaning Vacuum Tower	C-47	June
Coke Drill Guide Plate	C-47	June
Coke Settling Pots	C-57	July 1
Decoking Furnace Coils	C-47	June
Double-Purpose Funnel Screws into Valve	C-78	March
Draw-String "Parka" Speeds Chimney Construction Work in Cold or Windy Weather	C-50	Aug.
Erect a Monorail for Filter and Valve Maintenance	C-78	March
Exchanger Test Set	C-47	June
Galvanizing Bicycles and Scooters Solves Maintenance Problem	C-45	Feb.
Gasket Board Closes Like a Book	C-57	May
Grease Gun on Outside of Tool Box	C-56	May
Handy Handle for Pipe Saves Fingers	C-56	May
Home Heater Elements to Prolong the Life of Radio Tower Lights	C-52	April
How to Dehydrate and Scrub Instrument Gas	C-46	Feb.
Mount Paper Towel Rack in Trunk of Service Car	C-78	March
Mount Speakers and Phones in Structure During Turnaround	C-57	May
Need a Shop Anvil?	C-40	Dec.
Old Plow Seat Makes Swivel Chair for Welder	C-53	April
Portable Rack for All Sorts of Tools	C-46	Feb.
Portable Tool Room for Turnarounds	C-56	May
Safe Handling of Acids	C-52	April
Service Station Sticker Keeps Track of Maintenance	C-53	April
Short Cut to Laying Pipe Under Fire Walls in Tank Farms	C-56	July 1
Skylight in Compressor Building Saves Electricity	C-52	April
Steam Jets Reduce Smog From Flare Stack	C-57	July 1
Steam Radiator for Repair Crews	C-46	Feb.
"Stop Arm" Safety Device Prevents Machinery From Rolling Off Truck Bed	C-50	Aug.
Stove for Shop and Warehouse	C-53	April
The "Sky Hook" a Reality	C-50	Aug.
Tool Kit on Wheels Simplifies Repairs	C-40	Dec.
To Open and Close Underwater Valves at Chemical Plant	C-77	March
Used Flexible Metallic Gaskets Can Make Good Strainer	C-46	Feb.
Use Old Drum to Build a Forced Ventilation	C-57	July 1
Use Paint Gun to Spray Insects	C-45	Feb.
Use Street Sweeper to Speed Tank Cleaning	C-53	April

GAS PROCESSING AND NATURAL GAS

Compressors Seals and Sealing Systems for the Centrifugal Compressor, Donald F. Crego	C-11	Feb.
Pulsation Control in Compressor Plants, C. Newman and N. H. Moerke	C-34	April
Dehydration A New Way to Dehydrate Gas, Robt. A. Daugherty	E-13	Sept.
Gas Dehydration, John M. Campbell	C-33	May
Extraction Low-Temperature Gasoline Extraction—Process Proved by Tennessee Gas Transmission, R. V. Mertz	C-34	June

PETROCHEMICALS

Fuel Products LP-Gas Use Breaks All Records, George R. Benz, Paul W. Tucker, W.F. Devoe	C-44	Jan.
Chemical Products Oxygenated Petrochemicals, Part IV, Section 2, Peter W. Sherwood	C-33	Jan.

TITLE OF ARTICLE AND AUTHOR	Page	Month
Oxygenated Petrochemicals, Part V, Section 1, Peter W. Sherwood	C-11	May
Oxygenated Petrochemicals, Peter W. Sherwood	C-11	Sept.
Petrochemicals Unlimited, Peter W. Sherwood	C-19	Oct.
Construction New Plant Construction—Planned and Underway	C-24	Sept.
Equipment Electrical System in New Petrochemical Plant, R. C. Berger	C-3	Aug.
Instrumentation and Control Petrochemicals Look for New Instruments, R. G. Marvin, W. L. Stuart, G. W. Lunsford and E. E. Ludwig	C-46	Sept.
Processes—General Oxygenated Petrochemicals, Part IV, Section 2, Peter W. Sherwood	C-33	Jan.
Chemists Charting Petroleum's Course—A Review	C-3	May
Oxygenated Petrochemicals, Part V, Section 1, Peter W. Sherwood	C-11	May
Oxygenated Petrochemicals, Peter W. Sherwood	C-11	Sept.
Petrochemicals Unlimited, Peter W. Sherwood	C-19	Oct.
Storage Biggest in the Business, John Roberts	E-16	Nov.

The Pipeline Engineer

Accounting How Accounting Was Set Up, G. Byron Smith	D-57	Oct.
Aerial Surveys Whirlybirds	D-48	Jan.
Automation Progress in Pipelining—Equipment, Manpower Use Made More Effective, Frank H. Love	D-13	July 15
Cathodic Protection Stray Currents: Big Headache for Corrosion Engineers, Dean O. Griffith	D-30	March
How Important Are Holidays, Marshall E. Parker	D-66	May
Submarine Lines Need Corrosion Protection, Robert C. Ledford	D-41	June
Anodes or Rectifiers? Wayne A. Johnson	D-29	July 1
When Does a Corrosion Program Pay? Karl T. Feldman and Ralph J. Osborn	D-45	Aug.
How's Your Doctor? O. C. Mudd	D-51	Aug.
Cathodic Protection Interference Problems—How to Solve Them, Francis W. Ringer	D-53	Sept.
A 17-Year Cathodic Protection Program Has Paid Off, G. R. Olson	D-35	Dec.
Coating and Wrapping They're Painting the Coating on Pipe, Donald M. Taylor	D-20	March
How Pipe Coatings Affect Complete Protection Programs, Austin S. Joy	D-22	March
Soon You May Be Spraying and Painting Coatings on Pipe Lines, Robert Bradford	D-19	July 1
Polyethylene Plastic Tape Gets First Major Test, Donald M. Taylor	D-33	Nov.
Dual-Purpose Marine Coating Gets Its First Big Test	D-22	Dec.
Communications Microwave System Tapping, Lee Elmore	D-52	Feb.
Microwave System Planning, Part 2: Microwave Surveys, Lee Elmore	D-40	March
Microwave System Planning, Lee Elmore	D-52	April
Microwave System Mileages, Technology Continue to Grow, Dean Hale	D-89	May
Something New in Microwave, R. B. Hoffman, R. C. Ferrar, and H. A. French	D-106	May
Microwave System Planning, Part 4, Lee Elmore	D-51	June
The Effects of the AT&T Consent Decree on Private Communications Operations, Joseph E. Keller	D-83	June
Buy Only the Best, F. Vinton Long	D-34	July 1
Microwave System Planning, Part 5: Propagation Path Planning, Lee Elmore	D-39	July 1
Pipe Line Microwave Systems: Detailed Information	D-56	Aug.
How to Use Passive Repeaters, R. H. Davis	D-39	Sept.
Beacons and Paint, C. E. Upson	D-67	Sept.
Communications, William C. Brady	D-56	Oct.
Microwave System Planning, Part 6: Microwave RF Links, Lee Elmore	D-44	Nov.
Compressor Cooling Application Brought Problems; Solution Found by Making Engine Design Changes, C. D. Long	D-22	Feb.
Hydraulic Drives for Aerial Cooler Fans, Charles R. Taylor	D-59	June
Compressors—Gas Tennessee Gas is Bustin' Out All Over	D-38	Jan.
Application Brought Problems; Solution Found by Making Engine Design Changes, C. D. Long	D-22	Feb.
Transco's Amazing Station 23 Designed for "In-Between" Service, Donald M. Taylor	D-35	March
How to Program Compressor Performance Data for Digital Computers, Dean P. Johnson and Fred E. Culvern	D-25	June
Practically Noiseless Plant . . . Serves Suburban Area for SoCal Gas, R. C. Baird and Jerry Stumm	D-56	July 1
Progress in Pipelining—Equipment, Manpower Use Made More Effective, Frank H. Love	D-13	July 15
First Automatic Compressor Station	D-16	Aug.
Compressor Station Incorporates New Design Features, Henry Fransworth and Jerry Stumm	D-33	Aug.
Cooling System Control	D-49	Aug.
Compressor Station Design and Construction, J. T. Cannan	D-65	Oct.
Field Adjustment Saves Money and Time, Too	D-24	Dec.
Computers How to Program Compressor Performance Data for Digital Computers, Dean P. Johnson, and Fred E. Culvern	D-25	June
Construction The 1956 Construction Outlook, Dean Hale	D-15	Jan.
New Ideas Made Pipelining Faster in 1955, Donald M. Taylor	D-17	Jan.
Tennessee Gas is Bustin' Out All Over	D-38	Jan.
Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet, Frank H. Love	D-52	Jan.
31.5-Mile Section Completes California Gas Line Looping, J. B. Stumm	D-75	Jan.
Russia Discovers Pipelining, Charles L. Adams	D-22	April
Welsh Line Laid by American Method, Walter Sekules	D-32	April
Rock Ditch Padded from Spoil Bank	D-88	May
Testing Program Should be Planned When Pipe Line is Designed, R. L. Kranzfelder	D-48	July 1
Process in Pipelining—Equipment, Manpower Use Made More Effective, Frank H. Love	D-13	July 15
Modern Design of Oil Lines, Part 3, Fritz Karge	D-22	Aug.
Slurry Handling: New Frontier for Pipelining Operations	D-16	Sept.
Out West, Gilsonite Goes Over the Mountain, Frank H. Love	D-18	Sept.
Back East, Coal Commutes from Cadiz to Cleveland, Dean Hale	D-20	Sept.
The Pacific Northwest Pipeline Story	D-32	Oct.
Free Enterprise Brings New Energy to the Booming Pacific Northwest, Ray C. Fish	D-32	Oct.
Building the Best Line Possible Isn't Enough Today! R. D. Ricketts	D-34	Oct.
Construction Problems in the Mountains, James W. Hall	D-37	Oct.
Design and Construction of the River Crossings, K. C. Biedermann	D-42	Oct.
How the System Was Tested, Paul F. McBride	D-46	Oct.
El Paso Natural Continues to Expand, Marshall Willis	D-85	Oct.
Trans-Canada Moves Into High Gear, D. W. Brown	D-89	Oct.
Plantation at Work on Long-Range Program	D-92	Oct.
Texas Gas Adding 226 Miles, 30,970 hp, Microwave System	D-94	Oct.
Canada's 1956 Construction Program Heavy to Gas Lines, Leslie Orr Rowland	D-97	Oct.
Finally—Canadian Gas Freed for Markets, H. G. Cochrane	D-100	Oct.
Texas Eastern System Made More Flexible	D-113	Oct.
TGT Adds 700 Miles in 1956	D-116	Oct.
American Louisiana—Newest Member of the American Natural Gas Family, Dean Hale	D-19	Nov.
American Louisiana—Surveys to Service in Rapid Time, Dean Hale	D-22	Nov.
Michigan Wisconsin—New Gulf Coast Gas Supply to Relieve Pressing Demand, Dean Hale	D-31	Nov.
How to Use Bonded-Wire Strain Gages, Part 1, D. L. Shipp, G. M. McClure, and H. J. Grover	D-35	Nov.
How to Use Bonded-Wire Strain Gages, Part 2, D. L. Shipp, G. M. McClure, and H. J. Grover	D-25	Dec.
Canada's First Major Gas Line, L. O. Rowland	D-44	Dec.
Controls Latest in Automatic Control, Jerry Stumm	D-40	Feb.
Time Code Control and Data Handling Systems, Paul K. Eckhardt	D-29	Aug.
Beacons and Paint, C. E. Upson	D-67	Sept.
Cooling Towers Proper Materials Selection Can Prevent Cooling Tower Corrosion Problems, F. C. Riesenfeld and C. L. Blohm	D-64	March
Why Cooling Towers Decay—How to Prevent, E. H. Hurst	D-43	Sept.
Corrosion They're Painting the Coating on Pipe, Donald M. Taylor	D-20	March
How Pipe Coatings Affect Complete Protection Programs, Austin S. Joy	D-22	March
Case History: Outdoor Pumping Equipment, N. M. Lytle	D-26	March
Stray Currents: Big Headache for Corrosion Engineers, Dean O. Griffith	D-30	March
Proper Materials Selection Can Prevent Cooling Tower Corrosion Problems, F. C. Riesenfeld and C. L. Blohm.	D-64	March
How Important Are Holidays, Marshall E. Parker	D-66	May
Anodes or Rectifiers? Wayne A. Johnson	D-29	July 1
When Does a Corrosion Program Pay? Karl T. Feldman and Ralph J. Osborn	D-45	Aug.
How's Your Doctor? O. C. Mudd	D-51	Aug.
Cathodic Protection Interference Problems—How to Solve Them, Francis W. Ringer	D-53	Sept.
Polyethylene Plastic Tape Gets First Major Test, Donald M. Taylor	D-33	Nov.
Dual-Purpose Marine Coating Gets Its First Big Test	D-22	Dec.
A 17-Year Cathodic Protection Program Has Paid Off, G. R. Olson	D-35	Dec.
Dehydration A New Way to Dehydrate Gas, Robert A. Daugherty	E-13	Sept.
Design How to Work the Revised Panhandle Formula, Part 1, John F. Schomaker and L. E. Hanna	D-25	May
Modern Design of Oil Pipe Lines, Fritz Karge	D-33	May
How to Work the Revised Panhandle Formula, Part 2, John F. Schomaker and L. E. Hanna	D-47	June
Modern Design of Oil Pipe Lines, Part 2, Fritz Karge	D-21	July 1
Modern Design of Oil Pipe Lines, Part 3, Fritz Karge	D-22	Aug.
Design of the System, Arthur B. Allyne	D-43	Oct.
Compressor Station Design and Construction, J. T. Cannan	D-65	Oct.
How to Use Bonded-Wire Strain Gages, Part 1, D. L. Shipp, G. M. McClure, and H. J. Grover	D-35	Nov.
How to Use Bonded-Wire Strain Gages, Part 2, D. L. Shipp, G. M. McClure, and H. J. Grover	D-25	Dec.
Dispatching Terminal Station Controlled Remotely, Frank H. Love	D-68	May
Ditching World's Biggest Ditcher Completes Field Trials	D-66	June
Economics Gas Industry Foresees Record Gains in 1956, Dean H. Mitchell	D-44	Feb.
Engines A Basic Cooling Concept Can Mean Lower Operating Costs, Brock Mott	D-20	Feb.
Stanolind's Experiences Show VPC to Be Economical, Efficient, Simple, G. O. Bates, J. E. English, and G. M. Franklin	D-25	Sept.
Engine Cooling A Basic Cooling Concept Can Mean Lower Operating Costs, Brock Mott	D-20	Feb.

TITLE OF ARTICLE AND AUTHOR	Page	Month
Stanclind's Experiences Show VPC to Be Economical, Efficient, Simple, G. O. Bates, J. E. English, and G. M. Franklin	D-25	Sept.
Evaporation Loss Paint Colors and Their Effect in Reducing Storage Tank Losses, E. L. Hoffman	D-61	Jan.
Fire Prevention Fire Prevention Practices in the Forests, Eldon H. Myrick	D-41	Oct.
Flow Calculations How to Work the Revised Panhandle Formula, Part 1, John F. Schomaker and L. E. Hanna	D-25	May
Modern Design of Oil Pipe Lines, Fritz Karge	D-33	May
Pipe Line Flow Efficiency Testing (A Symposium)	D-15	July 1
Pipe Line Flow Calculations, J. W. J. Bercher	D-33	Sept.
Foreign Troubles in Italian Oil Operations, Fernando de Mattia	E-7	June
Gaging Taped Tickets Eliminate Bookkeeping Burdens	D-27	Aug.
Gas Cooling Cooling System Control	D-49	Aug.
Gas Supply San Juan Basin Gassers Ready to Deliver, J. M. Clark	D-36	Oct.
General Pipe Line Contractors Meet in Florida	D-12	Jan.
The 1956 Construction Outlook, Dean Hale	D-15	Jan.
Natural Gas Shipped Via Tank Car	D-74	Jan.
What's Ahead in Pipelining, Donald M. Taylor	D-22	May
Pipe Lines Spread in Venezuela, O. J. Marr	D-102	May
What the Archeologists Found Along the Right-of-Way, Jessie L. Nusbaum	D-60	Oct.
The Pipeline Engineer's 1956-57 Pipe Line Contractors Directory	D-74	Oct.
Finally—Canadian Gas Freed for Markets, H. G. Cochrane	D-100	Oct.
Russia Makes Slow Progress in 'Second Baku,' Charles L. Adams	E-13	Oct.
First Report on the Secret 'North Pole' Pipe Line, Carl I. Huss	D-19	Dec.
The Blow Down	D-33	Dec.
Government Regulations The Effect of the AT&T Consent Decree on Private Communications Operations, Joseph E. Keller	D-63	June
Instrumentation Terminal Station Controlled Remotely, Frank H. Love	D-68	May
Selective Telemetering Makes Remote Control More Effective, L. G. Walker	D-92	May
Pump Station Remotely Supervised, Ralph J. Osborn	D-98	May
Remote Controlled, Unattended Pump Stations Highlight Modernization, Paul R. Madden	D-20	June
Remote Station Operation Grows, W. A. Derr and M. A. Hyde	D-31	June
First Automatic Compressor Station	D-16	Aug.
Time Code Control and Data Handling Systems, Paul K. Eckhardt	D-29	Aug.
Leak Detection Finding Buried Gas Leaks, J. P. Sherwin	D-38	Aug.
Line Displacement Current Practices in Displacing Liquid Hydrocarbons From Pipe Lines, Sam C. Phelps	D-28	Feb.
Line Pipe Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet, Frank H. Love	D-52	Jan.
Line Tapping Nine "Little" Taps Make One Big Tap, Jim Ford	D-48	Feb.
Locating Pipe Lines The Mole . . . What it is and How it Works, W. F. Krueger	D-12	Feb.
Looping Tennessee Gas is Bustin' Out All Over	D-38	Jan.
31.5-Mile Section Completes California Gas Line Looping, J. B. Stumm	D-75	Jan.
Maintenance Dealer-Owner Relationships, N. Kent	D-58	Jan.
Spare Part Inventory Control	D-16	Feb.
Maintenance and Repair Current Practices in Displacing Liquid Hydrocarbons From Pipe Lines, Sam C. Phelps	D-28	Feb.
"Fix It" Headquarters, Carl Huss	D-54	March
Operation and Maintenance of Gas Turbines, E. A. Walsh	D-46	May
Pipe Line Flow Efficiency Testing (A Symposium)	D-15	July 1
The Case of the "Packed Up" Troubles! David C. Palm	D-32	July 1
Finding Buried Gas Leaks, J. P. Sherwin	D-38	Aug.
Cleaning Pipe Lines With Chemicals, Harold R. Quinn	D-43	Aug.
Why Cooling Towers Decay—How to Prevent, E. H. Hurst	D-43	Sept.
Preventing Fires While Repairing Lines, W. J. Irwin	D-82	Sept.
Loading Heavy Equipment Made Easy and Safe, Leon Lewis	D-32	Dec.
A 17-Year Cathodic Protection Program Has Paid Off, G. R. Olson	D-35	Dec.
Measurement Taped Tickets Eliminate Bookkeeping Burdens	D-27	Aug.
Design and Construction of Meter Stations, F. M. Partridge	D-48	Oct.
Metering—Gas Design and Construction of Meter Stations, F. M. Partridge	D-48	Oct.
Microwave Microwave System Tapping, Lee Elmore	D-52	Feb.
Microwave System Planning, Lee Elmore	D-52	April
Microwave System Mileages, Technology Continue to Grow, Dean Hale	D-89	May
Something New in Microwave, R. B. Hoffman, R. C. Ferrar, and F. [illegible] French	D-106	May
Microwave System Planning, Part 4, Lee Elmore	D-51	June
Buy Only the Best, F. Vinton Long	D-34	July 1
Microwave System Planning, Part 5, Propagation Path Planning, Lee Elmore	D-39	July 1
Pipe Line Microwave Systems: Detailed Information	D-56	Aug.
How to Use Passive Repeaters, R. H. Davis	D-39	Sept.
Beacons and Paints, C. E. Upson	D-67	Sept.
Communications, William C. Brady	D-56	Oct.
Microwave System Planning, Part 6—Microwave RF Links, Lee Elmore	D-44	Nov.
Motors Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet, Frank H. Love	D-52	Jan.
Offshore Pipe Lines Twin 364-Mile Underwater Lines for Both Oil, Gas Planned for Gulf, Donald M. Taylor	D-44	Jan.
New Method for Laying Underwater Pipe Lines, Donald M. Taylor	D-25	April
Submarine Lines Need Corrosion Protection, Robert C. Ledford	D-41	June
Operations Operating the Pacific Northwest System, Arthur B. Allyne	D-62	Oct.
Outlook What's Ahead in Pipelining, Donald M. Taylor	D-22	May
Construction Report: 1956	D-23	Oct.
Canada's 1956 Construction Program Heavy to Gas Lines, Leslie Orr Rowland	D-97	Oct.
Pipe Line Pictorial Contractors on the Job	D-27	Jan.
Pumping Equipment Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet, Frank H. Love	D-52	Jan.
Case History: Outdoor Pumping Equipment, N. M. Lytle	D-26	March
Station Designed for Two-Way Pumping, Frank H. Love	D-29	April
Now . . . Measure Pump Efficiencies From Fluid Temperature Rises, G. P. Jennings and L. P. Meade	D-26	July 1
Progress in Pipelining—Equipment, Manpower Use Made More Effective, Frank H. Love	D-13	July 15
Pumping Stations Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet, Frank H. Love	D-52	Jan.
Station Designed for Two-Way Pumping, Frank H. Love	D-29	April
Simplicity and Efficiency Highlight Products Stations, Jerry Stumm	D-54	May
Remote Controlled, Unattended Pump Stations Highlight Modernization, Paul R. Madden	D-20	June
Remote Station Operation Grows, W. A. Derr and M. A. Hyde	D-31	June
Pumps Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet, Frank H. Love	D-52	Jan.
Now . . . Measure Pump Efficiencies From Fluid Temperature Rises, G. P. Jennings and L. P. Meade	D-26	July 1
Remote Control Terminal Station Controlled Remotely, Frank H. Love	D-68	May
Selective Telemetering Makes Remote Control More Effective, L. G. Walker	D-92	May
Pump Station Remotely Supervised, Ralph J. Osborn	D-98	May
Remote Controlled, Unattended Pump Stations Highlight Modernization, Paul R. Madden	D-20	June
Remote Station Operation Grows, W. A. Derr and M. A. Hyde	D-31	June
First Automatic Compressor Station	D-16	Aug.
Right of Way The 2440-Mile Skirmish Line, Donald M. Taylor	D-44	Oct.
River Crossing The Mole . . . What it is and How it Works, W. F. Krueger	D-12	Feb.
Design and Construction of the River Crossing, K. C. Biedermann	D-42	Oct.
Safety Preventing Fires While Repairing Lines, W. J. Irwin	D-82	Sept.
Fire Prevention Practices Through the Forests, Eldon H. Myrick	D-41	Oct.
Station Design Latest in Automatic Control, Jerry Stumm	D-40	Feb.
Transco's Amazing Station 23 Designed for "In-Between" Service, Donald M. Taylor	D-35	March
Practically Noiseless Plant . . . Serves Suburban Area for SoCal Gas, R. C. Baird and Jerry Stumm	D-56	July 1
First Automatic Compressor Station	D-16	Aug.
Compressor Station Incorporates New Design Features, Henry Fransworth and Jerry Stumm	D-33	Aug.
Storage—Tanks Paint Colors and Their Effect in Reducing Storage Tank Losses, E. L. Hoffman	D-61	Jan.
Storage—Underground Suburban Underground Gas Storage in California Proves Feasible	D-58	March
Practically Noiseless Plant . . . Serves Suburban Area for SoCal Gas, R. C. Baird and Jerry Stumm	D-56	July 1
Two California Storage Fields Now in Service	D-53	Dec.
Surveys—Right-of-Way Whirlybirds	D-48	Jan.
System Operations Tapline: A Report of Five Years of Successful Operation	D-36	April
Loss of Products Can Be Reduced, W. J. Curry	D-80	May
Tankage Paint Colors and Their Effect in Reducing Storage Tank Losses, E. L. Hoffman	D-61	Jan.
Telemetering Terminal Station Controlled Remotely, Frank H. Love	D-68	May
Selective Telemetering Makes Remote Control More Effective, L. G. Walker	D-92	May
Remote Station Operation Grows, W. A. Derr and M. A. Hyde	D-31	June
Time Code Control and Data Handling Systems, Paul K. Eckhardt	D-29	Aug.
Terminals Products Pipe Line Terminals in Common Carrier Service, C. C. Keane	D-60	May
Testing Testing Program Should be Planned When Pipe Line is Designed, R. L. Kranzfelder	D-48	July 1
How the System Was Tested, Paul F. McBride	D-46	Oct.
Turbines Operation and Maintenance of Gas Turbines, E. A. Walsh	D-46	May
Underwater Pipe Lines Tennessee Gas Is Bustin' Out All Over	D-38	Jan.
Twin 364-Mile Underwater Lines for Both Oil, Gas Planned for Gulf, Donald M. Taylor	D-44	Jan.
Whirlybirds	D-48	Jan.
The Mole . . . What it is and How it Works, W. F. Krueger	D-12	Feb.
New Method for Laying Underwater Pipe Lines, Donald M. Taylor	D-25	April
Submarine Lines Need Corrosion Protection, Robert C. Ledford	D-41	June
Design and Construction of the River Crossings, K. C. Biedermann	D-42	Oct.
Dual-Purpose Marine Coating Gets Its First Big Test	D-22	Dec.
Warehousing Spare Parts Inventory Control	D-16	Feb.
Wire Lines Communications, William C. Brady	D-56	Oct.
Ideas at Work Add Gin-Pole to Pick-Up or Bob-Tail Maintenance Truck	D-131	May
A Handy Way to Store Welding Rods	D-60	July 1
Another Gate Latch	D-84	March
Cheater for Stubborn Valves	D-68	Feb.
Double-Purpose Funnel Screws into Valve	D-65	April
Erect a Monorail for Filter and Valve Maintenance	D-61	July 1
Gasket Board Closes Like a Book	D-64	April
Grease Gun on Outside of Tool Box	D-64	April
Handy Handle for Pipe Saves Fingers	D-64	April

TITLE OF ARTICLE AND AUTHOR	Page	Month
High Speed Shaft Metalized Successfully	D-60	July 1
Home Heater Elements to Prolong the Life of Radio Tower Lights	D-84	March
How to Cut Time in Half for Rod Packing Run-In	D-73	Aug.
How to Dehydrate and Scrub Instrument Gas	D-65	April
How to Save Time and Money in Setting Anchor Bolts in Compressor Block	D-73	Aug.
Leg Make-Up Protects Pipeliners Against Dope	D-61	July 1
Make a Grindstone from an Old Washing Machine	D-30	Sept.
Make a Reel for Welding Cable	D-85	March
Make Enlarged Governor Dial That Can Be Seen Long Distance	D-68	Feb.
Make Sliding Shelf for Utility Welding Truck	D-84	March
Make a Trailer From an Old Pick-Up Truck Body	D-130	May
Mount Paper Towel Rack in Truck of Service Car	D-67	Feb.
Mount a Whistle or Horn on a Tractor for Safety	D-130	May
Movable Light Stand Made From Discarded Swivel Chair Base	D-69	June
Neat Work Table From Old Pump Base	D-61	July 1
Need a Shop Anvil?	D-72	Aug.
Old Plow Seat Makes Swivel Chair for Welder	D-131	May
Pipe Stop for Pipe Rack	D-72	Aug.
Portable Cattle Guards Can Eliminate Right-of-Way Troubles	D-67	Feb.
Portable Rack for All Sorts of Tools	D-85	March
Rack Keeps Relief Valve Weights Handy	D-69	June
Sand in Table Top Eliminates Shop Noise	D-60	July 1
Service Station Sticker Keeps Track of Maintenance	D-67	Feb.
Sheet Aluminum Makes Fine 'Granny Rag'	D-68	Feb.
Shop Utility Table	D-30	Sept.
Short Cut to Laying Pipe Under Fire Walls in Tank Farms	D-68	June
Skylight in Compressor Building Saves Electricity	D-130	May
Spare Parts Catalogs in Lock Box on Tractor	D-65	April
Steps on the Back of a Truck for Safety's Sake	D-30	Sept.
"Stop Arm" Safety Device Prevents Machinery From Rolling Off Truck Bed	D-69	June
Stove for Shop and Warehouse	D-131	May
Stow the Bumper Jack on the Side of a Pickup to Increase Payload	D-131	May
The "Sky Hook" a Reality	D-31	Sept.
Tool Kit on Wheels Simplifies Repairs	D-72	Aug.
Used Flexible Metallic Gaskets Can Make Good Strainer	D-85	March
Use Old Pipe to Make a Boot for a Gas Bottle	D-85	March
Use Paint Gun to Spray Insects	D-65	April
Use Street Sweeper to Speed Tank Cleaning	D-130	May

AUTHOR INDEX

AUTHOR	Page	Month
A		
Adair, William B. Calculating A Gas-Lift Installation	B-41	Nov.
Adams, Charles L. Deep Wells in Russia Find New Oil	B-27	Feb.
Russia Discovers Pipelining	D-22	April
Russia Makes Slow Progress in 'Second Baku'	E-13	Oct.
Adams, Ernestine This Year of Prosperity—1956	A-23	Jan.
World Refining Capacity Nears 18 Million Barrels Crude Oil Daily	E-10	Jan.
Investment in Management	E-5	Feb.
Top-Flight Consultant Service	E-19	Feb.
80 Wells Go Below 15,000 Feet in 1955	B-21	Feb.
World Oil Hits Highest Peak	E-1	April
Company Operations and Sales at All Time High in 1955	E-2	May
Attack on Shortage of Scientists and Engineers	E-32	May
Research Has Old Mysteries in a Spin	E-3	July 15
Three Stories of Guatemala	E-7	Nov.
Oil Companies Bounce Back From Third Quarter Doldrums	E-10	Dec.
Aitken, Thomas C. Parallel Strings and Pumps Run in 5½-in. Casing	B-85	Sept.
Alciatore, Antoine F. Recovery of Refinery Slop Oil by Filtration	C-9	Aug.
Alexander, Robert C., Jr. New Idea in Drilling Barge Assembly	B-80	Oct.
Allyne, Arthur B. Design of the System	D-43	Oct.
Operating the Pacific Northwest System	D-62	Oct.
Al-Pachachi, Nadhim, et al Iraq's First Daura Refinery	C-11	April
Arens, John E. Depreciation	E-12	July 15
Arnold, P. C. Furnace-in-Sky Sets Pattern for Vessel Stress Relief	C-23	Aug.
Arps, J. J. Evaluation of Workovers . . . Before and After	B-97	Sept.
Attaway, Don Refining Fundamentals—Mechanical Engineering, Part 5	C-16	Jan.
Ayers, H. J. Shutting Off Water Zones in Air Drilling	B-58	Oct.
B		
Babicz, Donald J. Explosive Characteristics of Aviation Gasoline Analytical Methods	C-41	July 1
Bailey, J. E. Problems in Completing High-Pressure Gas Wells	B-21	Aug.
Baird, R. C. Practically Noiseless Plant . . . Serves Suburban Area for SoCal Gas	D-56	July 1
Barber, E. M. Road Ratings Obtained in a Single-Cylinder Engine	C-50	Sept.
Barnes, William P. Jet Engines and Their Probable Future	C-41	Aug.
Barron, Arthur S. Management and Tomorrow's Economy	E-3	Dec.
Barwick, John S. Chile Pushes Production and Refinery Runs	E-5	July 1
Bates, G. O. Stanolind's Experiences Show VPC to be Economical Efficient, Simple	D-25	Sept.
Beck, R. W. Fishing Operations in Venezuela	B-95	April
Becker, Francis S. Level Measurements in Granular Solids	C-23	Feb.
Belcher, Dallas You Can Solve That Problem	E-3	Aug.
Bentley, Wilson J. Management Course Limited to 25 Persons	E-17	Nov.
Benz, George R. LP-Gas Use Breaks All Records	C-44	Jan.
Bercher, J. W. J. Pipe Line Flow Calculations	D-33	Sept.
Berger, R. C. Electrical System in New Petrochemical Plant	C-3	Aug.
Bergman, D. J. Refining in Brief—Some Cases of Stress Due to Temperature Gradient	C-45	July 1
Bertolette, W. deB Improving Fuel Oils Through Addition Agents	C-41	Nov.
Besse, Ralph M. The Philosophy of Reading	E-40	March
Bethancourt, Raoul An Approach to Analyzing Ailing Wells	B-24	Sept.
Biedermann, K. C. Design and Construction of the River Crossings	D-42	Oct.
Black, W. B., Jr. When Does a Turnaround Begin?	C-6	April
Blohm, C. L. Proper Materials Selection Can Prevent Cooling Tower Corrosion Problems	D-64	March
Boner, C. J. Addition Agents for Lubricants, Part 1	C-53	March
Addition Agents for Lubricants, Part 2	C-28	May
Addition Agents for Lubricants, Part 3	C-17	Aug.
Bouman, C. A. Buckling of Oil Well Piping	B-60	June
Bradford, Robert Soon You May Be Spraying or Painting Coatings on Pipe Lines	D-19	July 1
Brady, William C. Communications	D-56	Oct.
Brooke, Maxey Determination of CO_2 in Steam and Condensate	C-22	March
Brown, C. T. California Crudes Show Great Variation in Properties	C-9	Jan.
Brown, D. W. Trans-Canada Moves into High Gear	D-89	Oct.
Brown, Gordon W. Taming Wild Waste Water	C-3	Sept.
Brown, Robert Wade How to Calculate Friction Losses During Well Treatments	B-123	Oct.
Bruno, Earl R. Some Observations on Drilling With Air	B-21	Jan.
Buck, J. Randolph Elements of Water Injection, Part 6	B-44	Jan.
Elements of Water Injection, Part 7	B-85	Feb.
Elements of Water Injection, Part 8	B-121	March
Elements of Water Injection, Part 9	B-84	May
Bumgardner, D. E. Hydraulic Drive for Aerial Cooler Fans	C-8	Sept.
Butler, E. A. You Need Leaderscope	E-22	Sept.
C		
Camp, George F. Down-Hole Chambers Increase Gas-Lift Efficiency, Part 1	B-87	June
Down-Hole Chambers Increase Gas-Lift Efficiency, Part 2	B-91	Aug.
Campbell, John M. Gas Dehydration	C-33	May
Cannan, J. T. Compressor Station Design and Construction	D-65	Oct.
Carlberg, B. L. Measuring Quality of Injection Waters	B-53	Nov.
Carlson, Dorothy The Too Common Cold	E-24	Nov.
Chandler, J. M. Anti-Knock Rating is Improved Mechanically	C-40	May
Chenoweth, J. M. Refining in Brief: Pressure Drop of Gas-Liquid Mixtures in Horizontal Pipes	C-42	April
Clark, J. M. San Juan Basin Gassers Ready to Deliver	D-36	Oct.
Clark, Norman J. Production Fundamentals—Formation Evaluation of Oil and Gas Reservoirs	B-21	April
The Analysis of Problem Wells	B-30	Sept.
New Injection Method Affords Total Oil Recovery	B-45	Oct.
Clift, W. D. Hydraulics of Rotary Drilling	B-38	April
Cobb, J. R. Mathematical Engineering as Applied to Design and Operations	C-6	May
Cochrane, H. G. Canadian Operations Hit a Hard Pace	E-22	April
Finally—Canadian Gas Freed for Markets	D-100	Oct.
Coffman, Charles L. Desirable Pumping Unit Speeds	B-86	Aug.
Colebrook, Ross W. Hydraulic Couplings and Torque Converters in Rig Drives	B-71	Oct.
Compton, Mardis G. Development and Peacetime Uses of Atomic Energy	E-18	March
Cormack, L. J. Combustion Chamber Improves Oil Field Boiler Operation	B-142	July 1
Cortes, J., Jr. Structure of Lubricating Grease Thickeners	C-49	May
Crain, Bob L. Modified Multiple-Well Completion	B-91	May
Crawford, Paul B. Sweep Efficiencies of Vertically Fractured Five-Spot Patterns	B-95	March
Crego, Donald F. Refining Fundamentals—Mechanical Engineering	C-17	Feb.
Culvern, Fred E. How to Program Compressor Performance Data for Digital Computers	D-25	June
Curry, W. J. Loss of Products Can be Reduced	D-80	May
Cushman, William F. Insure Your Foreign Operations	E-18	May
Cutrer, John Hydraulics of Rotary Drilling	B-38	April
D		
Danziger, Ben H. Molybdenum in Petroleum Refining—Part 1	C-3	Nov.
Molybdenum in Petroleum Refining—Part 2	C-12	Dec.
Daugherty, Robert A. A New Way to Dehydrate Gas	E-13	Sept.
Davis, Kieffer The Matter of the Heart	E-37	March
Davis, R. H. How to Use Passive Repeaters	D-39	Sept.
Davison, K. A Different Approach to Waterflooding	B-147	June
de Mattia, Fernando Troubles in Italian Oil Operations	E-7	June
Italian Development Crippled by Laws	E-19	Sept.
Derr, W. A. Remote Station Operation Grows	D-31	June
DeVoe, W. F. LP-Gas Use Breaks All Records	C-44	Jan.

AUTHOR	Page	Month
Dilworth, J. Perry New Grease for High Temperature—Ultra High Speed Operation	C-8	Feb.
Domke, C. J. Needed: A New Knock Yardstick?	C-38	Sept.
Dower, E. J. Variations in Mud Pit Level	B-151	Oct.
Dyer, R. A. Heat Exchanger Cleaning System	C-9	Nov.
E		
Eastman, H. John Is This the Answer to Pembina Drilling Problems?	B-80	Feb.
Eckhardt, Paul K. Time Code Control and Data Handling Systems	D-29	Aug.
Eisele, G. F. What Happens in a Cat Reformer?	C-37	Oct.
Elkin, Harry F. Water Purification at Toledo Refinery	C-38	Oct.
Ellis, Robert L. Two-Step Insulation Reduces Maintenance Down-Time	C-53	July 1
Elmore, Lee Microwave System Planning, Part 1	D-52	Feb.
Microwave System Planning, Part 2	D-40	March
Microwave System Planning, Part 3	D-52	April
Microwave System Planning, Part 4	D-51	June
Microwave System Planning, Part 5	D-39	July 1
Microwave System Planning, Part 6	D-44	Nov.
EnDean, Howard J. BS&W Control in Automatic Transfer Custody	B-24	Nov.
English, J. E. Stanolind's Experiences Show VPC to be Economical, Efficient, Simple	D-25	Sept.
Enoch, O. Anti-Knock Rating is Improved Mechanically	C-40	May
Esau, N. D. Needed: A New Knock Yardstick?	C-38	Sept.
Evans, Dwight J. Ultrasonics for Inspection and Cleaning	C-3	July 1
F		
Fairless, Benjamin The Perfect Price	A-10	Feb.
Faith, W. L. What Causes Smog? What Remedies Have We?	C-3	Oct.
Farnsworth, Henry Compressor Station Incorporates New Design Features	D-33	Aug.
Faulconer, C. A. Heat Exchanger Cleaning System	C-9	Nov.
Feldman, Karl T. When Does a Corrosion Program Pay?	D-45	Aug.
Felsenthal, Martin Measuring Quality of Injection Waters	B-53	Nov.
Fennema, Thad S. Practical Economics for Refinery Mechanical Engineers	C-3	Dec.
Ferrar, R. C. Something New in Microwave	D-106	May
Fish, Ray C. Free Enterprise Brings New Energy to the Booming Pacific Northwest	D-32	Oct.
Ford, Jim Nine "Little" Taps Make One Big Tap	D-48	Feb.
Foster, Arch L. Residual Fuel Oil—Where is it Going?	C-6	March
How Many "Custombuilt" Motor Fuels?	C-3	June
Refining Fundamentals: Process Division: Catalytic Cracking and Reforming; Chapter VII	C-14	July 1
Refiners' "Tools of the Trade"	C-9	July 15
Foster, S. C. Drilling With Air in the Rocky Mountains	B-100	Oct.
Franklin, G. M. Stanolind's Experiences Show VPC to be Economical, Efficient, Simple	D-25	Sept.
Franks, Bennie L. Are You Sure You're Getting Peak Pumping Efficiency?	B-93	Dec.
Fredhold, Allan B., Jr. Drilling Fundamentals—Power Transmission	B-28	Aug.
French, H. A. Something New in Microwave	D-106	May
Frensley, L. E. The Calculated Future	E-1	Feb.
Fuhs, R. C. Electronic Instrumentation For Atlantic Catformer	C-30	Feb.
G		
Galpin, Sidney S. Unique Tools and Methods Used in Gas Well Workovers	B-140	Sept.
Garbus, Richard New Idea in Thermal Oil Recovery	B-83	April
Geer, R. L. Automatic Lease Production System	B-49	May
Glanville, Charles R. Reservoir Evaluation by Log Interpretation	B-50	Feb.
Graham, C. R., Jr. Lowest Prices—1955 Drilling—Highest Cost	B-48	Feb.
Texas Reviews Its Shutdown-Exempt Fields	B-79	March
Tidelands Ownership Question Stymies New Drilling	B-38	Aug.
Graham, Gene Drilling Fundamentals—Requirements for Drilling Contractors	B-103	Jan.
Gray, D. S. Needed: A New Knock Yardstick?	C-38	Sept.
Griffith, Dean O. Stray Currents: Big Headache for Corrosion Engineers	D-30	March
Grover, H. J. How to Use Bonded-Wire Strain Gages, Part 1	D-35	Nov.
How to Use Bonded-Wire Strain Gages, Part 2	D-25	Dec.
Guepin, F. A. C. Roadways of the World	E-23	May
H		
Hacke, Maxine R. Another Aid to Communication	C-20	Nov.
Hale, Dean The 1956 Construction Outlook	D-15	Jan.
Microwave System Mileages, Technology Continue to Grow	D-89	May
Back East, Coal Commutes from Cadiz to Cleveland	D-20	Sept.
American Louisiana—Newest Member of the American Natural Gas Family	D-19	Nov.
American Louisiana—Surveys to Service in Rapid Time	D-22	Nov.
Michigan Wisconsin—New Gulf Coast Gas Supply to Relieve Pressing Demand	D-31	Nov.
Hall, James W. Construction Problems in the Mountains	D-37	Oct.
Hanna, L. E. How to Work the Revised Panhandle Formula, Part 1	D-25	May
How to Work the Revised Panhandle Formula, Part 2	D-47	June
Hansen, H. D. Deep Well Fracturing in Headlee Devonian	B-25	June
Hardee, Peck, Jr. Waste Heat Treats Oil at Isolated Lease	B-56	Dec.
Hart, W. Volatility, Viscosity and V. I. Improvers Affect Oil Consumption Strongly	C-46	Nov.
Hauber, William C. Predicting Water Flood Behavior	B-105	April
Hawkins, Murphy E. Electrical Resistivities of Oil Field Brines in South Arkansas and North Louisiana	B-80	July 1
Electrical Resistivities of Oil Field Brines, Part 2	B-104	Aug.
Heldman, J. D. Two-Stage Fluid Cracker—New Model	C-6	June
Henderson, J. K. Technical Tips on Selecting Fracturing Fluids	B-27	Jan.
Acid Spearhead Helps to Increase Fracturing Efficiency	B-74	Aug.
Henderson, James R. Productivity Index of Pumping Wells	B-35	Jan.
Hennessy, Carroll Automatic Tube System	C-17	Sept.
Herrmann, A. E. Oil and the Independent Operator	E-13	Aug.
Hinson, H. H. Signposts of Better Management	E-3	June
Hipple, Millard L. Design Considerations for Small Unattended Field Gas Compressors	B-110	Nov.
Hoffman, E. L. Paint Colors and Their Effect in Reducing Storage Tank Losses	D-61	Jan.
Hoffman, R. B. Something New in Microwave	D-106	May
Hogwood, E. E., Jr. Straight AC Rig Solves Problems of Drilling in Residential Areas	B-38	Jan.
Hook, E. O. Boron—New Improvement Agent	C-10	July 1
Horn, L. C. Fire Prevention on a Drilling Rig	B-114	May
Hower, Wayne F. Shutting Off Water Zones in Air Drilling	B-58	Oct.
Hu, Shao-Chio Direct-Contact Gasoline Condenser	C-12	Nov.
Hughes, E. C. Boron—New Improvement Agent	C-10	July 1
Hummer, Herbert B. Refining Fundamentals—Mechanical Division II Selecting Equipment, E. Mechanical Shaft Seals and Their Pressure-Velocity Limitations	C-34	Nov.
Hurst, E. H. Why Cooling Towers Decay—How to Prevent	D-43	Sept.
Hurst, R. E. Fresh Water Fracturing in the Permian Basin	B-68	Dec.
Huss, Carl "Fix It" Headquarters	D-54	March
First Report on the Secret 'North Pole' Pipe Line	D-19	Dec.
Hutcheson, John W. Modern Genii of the American Motorist—Additives	E-1	Jan.
Hyde, M. A. Remote Station Operation Grows	D-31	June
I		
Irwin, W. J. Preventing Fires While Repairing Lines	D-82	Sept.
Isto, N. J. Drilling With Air in the Rocky Mountains	B-100	Oct.
J		
Jacobus, Gilbert C. Is Management for the Specialist	E-3	Oct.
Jennings, G. P. Now . . . Measure Pump Efficiencies from Fluid Temperature Rises	D-26	July 1
Johnson, Dean P. How to Program Compressor Performance Data for Digital Computers	D-25	June
Johnson, Wayne A. Anodes or Rectifiers?	D-29	July 1
Jonach, F. L. Refining in Brief: Sludge Formation and Additives Action	C-45	April
Jones, C. Morgan Largest Indian Refinery on Stream	C-21	Jan.
'Sea-Going' Storage Tanks to New Berth	C-44	Dec.
Joy, Austin S. How Pipe Coatings Affect Complete Protection Programs	D-22	March
K		
Kalichevsky, V. A. Refining Fundamentals—Technology	C-49	Jan.
Refining Fundamentals—Technology: Refining of Lubricating Oils, Chapter X, Section I	C-11	Feb.
Refining Fundamentals—Technology: Refining of Lubricating Oils, Section II	C-70	March
Refining Fundamentals—Technology: Refining of Lubricating Oils, Section III	C-20	May
Refining Fundamentals—Process Division: Refining Methods for Waxes, Asphalts, Greases and Compounded Oils, Chapter III	C-16	June
Refining Fundamentals—Process Division: Petroleum Products—Nature and Properties, Chapter XII	C-20	Sept.
Refining Fundamentals—Process Division: Chapter XIII, Gasoline: Motor Fuels	C-24	Dec.
Karge, Fritz Modern Design of Oil Pipe Lines, Part 1	D-33	May
Modern Design of Oil Pipe Lines, Part 2	D-21	July 1
Modern Design of Oil Pipe Lines, Part 3	D-22	Aug.
Kastrop, J. E. Newest Aid to Multi-Stage Fracturing	B-40	Dec.
Kaufman, M. J. Well Stimulation by Fracturing	B-53	Sept.
Keane, C. C. Products Pipe Line Terminals in Common Carrier Service	D-60	May
Keating, T. W. Hydraulics of Rotary Drilling	B-38	April
Keller, Joseph E. The Effects of the AT&T Consent Decree on Private Communications Operations	D-63	June
Kemp, L. C., Jr. Great Strides Made in Smoke and Fumes Research	C-14	Oct.
Kenneday, John W. Permanent-Type Dual Completions	B-24	March
Kent, N. Dealer-Owner Relationships	D-58	Jan.
Kerley, R. V. The Knocking Behavior of Fuels and Engines	C-40	June
Kindler, Herbert S. Selecting Control Valves	B-88	March
Standard Layouts for Oil Field Pump Controls	B-96	Nov.
Klemme, Don A. Safe Practices in Workover Operations	B-134b	Sept.
Knox, E. S. Straight AC Rig Solves Problems of Drilling in Residential Areas	B-38	Jan.
Koger, W. C. Corrosion Protection of Oil Well Casing	B-64	Aug.
Kranzfelder, R. L. Testing Program Should be Planned When Pipe Line is Designed	D-48	July 1
Krueger, W. F. The Mole . . . What It Is and How It Works	D-12	Feb.
Krull, Alan R. Punch Card System for the Petroleum Industry	E-27	March
Kuhn, Wayne Modern Genii of the American Motorist—Additives	E-1	Jan.
Kunreuther, F. Two-Stage Fluid Cracker—New Model	C-6	June
L		
Ladd, H. W. Casing and Tubing—Enough for Tomorrow's Drilling?	B-84	Dec.
LaFave, V. A. Design Application for Air Drilling Equipment	B-138	Oct.
Landrum, Bobby L. Sweep Efficiencies of Vertically Fractured Five-Spot Patterns	B-95	March
Larson, C. M. New Viscosity Index In Route to Adoption	C-11	June
New Viscosity Index En Route to Adoption, Part 2	C-12	Aug.
Lavery, John P., Jr. Recent Developments in the Tejon-Grapevine Field	B-31	Jan.
Ledford, Robert C. Submarine Lines Need Corrosion Protection	D-41	June
LeVelle, James A. New Production Programming System	B-30	April
Production Fundamentals—Selecting a Well Completion Program	B-38	May
An Engineer's Look at Turbine Drilling	B-39	Oct.
Levorsen, A. I. "Geologists are Talking About . . ."	B-39	Feb.

AUTHOR	Page	Month
Lewis, Leon Loading Heavy Equipment Made Easy and Safe	D-32	Dec.
Long, C. D. Application Brought Problems; Solution Found by Making Engine Design Changes	D-22	Feb.
Long, F. Vinton Buy Only the Best	D-34	July 1
Love, Frank H. Completion of Butte's System Gives Eastern Montana Its First Oil Pipe Line Outlet	D-52	Jan.
Station Designed for Two-Way Pumping	D-29	April
Terminal Station Controlled Remotely	D-68	May
Progress in Pipelining — Equipment, Manpower Use Made More Effective	D-13	July 15
Out West, Gilsonite Goes Over the Mountain	D-18	Sept.
Ludwig, E. E. Petrochemicals Look for New Instruments	C-46	Sept.
Lunsford, G. W. Petrochemicals Look for New Instruments	C-46	Sept.
Lytle, N. M. Outdoor Pumping Equipment	D-26	March
M		
McBride, Paul F. How the System Was Tested	D-46	Oct.
McClellan, A. L. Structure of Lubricating Grease Thickeners	C-49	May
McClure, D. J. Volatility, Viscosity and V. I. Improvers Affect Oil Consumption Strongly	C-46	Nov.
McClure, G. M. How to Use Bonded-Wire Strain Gages, Part 1	D-35	Nov.
How to Use Bonded-Wire Strain Gages, Part 2	D-25	Dec.
McDonald, Price Permanent Type Completions and Wireline Workovers	B-39	Sept.
McIntire, R. L. Mathematical Engineering as Applied to Design and Operations	C-6	May
McIntyre, T. J. Unusual Methods Pay Off — Sometimes	B-129	Sept.
McKinney, Arthur W. What the Supply Store Can Do for You	E-9	July 15
McLendon, Dan H. Interpretation of Radioactivity Logs in Gas-Drilled Wells	B-63	Oct.
McRae, A. D. Biological Oxidation of Phenolic Waste Water	C-44	Oct.
Maass, R. H. Refining in Brief: Fluid Coker — Mechanical Design Aspects	C-36	April
Madden, Paul R. Remote Controlled, Unattended Pump Stations Highlight Modernization	D-20	June
Mapstone, George E. Plant Aid: Nomograph for Sensitivity of Hydrocarbons and Gasolines	C-46	June
Marr, O. J. Pipe Lines Spread in Venezuela	D-162	May
Marshall, J. A. Two-Stage Fluid Crackers—New Model	C-6	June
Martin, Jack T. How to Interpret Tubing Caliper Surveys	B-31	June
Martin, M. W. Refining in Brief: Pressure Drop of Gas-Liquid Mixtures in Horizontal Pipes	C-42	April
Martinez, S. J. Fresh Water Fracturing in the Permian Basin	B-68	Dec.
Marvin, R. G. Petrochemicals Look for New Instruments	C-46	Sept.
Meade, L. P. Now . . . Measure Pump Efficiencies from Fluid Temperature Rises	D-26	July 1
Mekler, L. A. Refining Fundamentals — Mechanical Engineering: Mechanical Design of Processed Tubular Heaters, Section 1	C-15	March
Refining Fundamentals — Mechanical Engineering: Mechanical Design of Processed Tubular Heaters, Section 2	C-20	April
Refining Fundamentals—Mechanicals Division: II. Selecting Equipment, D. Mechanical Design of Process Tubular Heaters, Section 3	C-26	June
Refining Fundamentals—Mechanical Division: II. Selecting Equipment—B. Tubular Heaters, Air Preheaters, Tube Cleaning, Section 5	C-28	Oct.
Menneer, Jack First Successful Installation in Saskatchewan Pumping Dual Wells in Canada	B-69	Jan.
Menzie, D. E. Predicting Water Flood Behavior	B-105	April
Merryman, C. J. Are You Sure You're Getting Peak Pumping Efficiency?	B-93	Dec.
Mertz, R. V. Low-Temperature Gasoline Extraction — Process Proved by Tennessee Gas Transmission	C-34	June
Meyers, D. C. Automatic Lease Production System	B-49	May
Michaud, Martin L. Selection of Materials for Refinery Construction	C-19	July 1
Miller, Herbert D. Productivity Index of Pumping Wells	B-35	Jan.
Miller, J. E. Goldfish Are Good Sanitary Inspectors	C-9	Oct.
Milliken, J. Richard Molybdenum in Petroleum Refining Part 1	C-3	Nov.
Molybdenum in Petroleum Refining — Part 2	C-12	Dec.
Mitchell, Dean H. Gas Industry Foresees Record Gains in 1956	D-44	Feb.
Mitchell, Don G. Planning for Future Success	E-15	May
Mizelle, P. E. Road Ratings With a Chassis Dynamometer	C-42	Sept.
Moerke, N. H. Refining in Brief: Pulsation Control in Compressor Plants	C-34	April
Montgomery, Palmer H. Unique Tools and Methods Used in Gas Well Workovers	B-140	Sept.
Montgomery, Randall F. Southeastern New Mexico's Rich Oil and Gas Potential	B-33	Dec.
Moore, E. E. Drilling Fundamentals — Fishing and Freeing Stuck Drill Pipe	B-54	April
Moore, J. L. Electrical Resistivities of Oil Field Brines in South Arkansas and North Louisiana	B-80	July 1
Electrical Resistivities of Oil Field Brines, Part 2	B-104	Aug.
Morgan, Forrest C. Production Fundamentals — Multiple-Zone Completions	B-38	June
Morgan, Ralph E. Refining Fundamentals — Mechanical Division: II. Selecting Equipment, E. Mechanical Shaft Seals and their Pressure-Velocity Limitations	C-34	Nov.
Morris, John Drafting Department Gets "New Look"	B-83	Aug.
Mott, Brock A Basic Cooling Concept Can Mean Lower Operating Costs	D-20	Feb.
Mudd, O. C. How's Your Doctor?	D-51	Aug.
Muir, J. L. Safety in Riggins Up and Tearing Down	B-113	Oct.
Murphy, Dennis Communication: Part 2, Democracy Depends on Democratic Writing	E-7	Jan.
Communication: Part 3, Words Resemble People—They're Our Employees!	E-33	Feb.
Communication: Part 4, How to Manage Sentences	E-10	March
Communication: Part 5, How Is Your Telephone Personality	E-25	May
Communication: Part 6, Twelve Tips On How To Dictate a Letter	E-13	June
Communication: Part 7, How Can We Write Superior Business Letters	E-7	July 1
Communication: Part 8, Creative Thinking in Business	E-7	Aug.
Communication: Part 9, Ten Aids to Logical Thinking	E-7	Oct.
Communication: Part 10, What Management Can Do To Improve It	E-12	Dec.
Murphy, E. J. Ten Commandments For Longevity	E-20	Dec.
Myrick, Eldon H. Fire Prevention Practices Through the Forests	D-41	Oct.
N		
Neumaier, B. W. Stopping Sulfur Corrosion in a Catalytic Reformer	C-33	Dec.
Newchurch, E. J. Refining in Brief: Fluid Coker—Mechanical Design Aspects	C-36	April
Newman, C. Refining in Brief: Pulsation Control in Compressor Plants	C-34	April
Newman, Charles How to Correct Orifice Plate Errors Due to Pulsative Gas Flow	B-73	Feb.
Nisle, Robert G. How to Use the Exponential Integral	B-171	Aug.
Nusbaum, Jessie L. What the Archeologists Found Along the Right-of-Way	D-60	Oct.
O		
Olson, G. R. A 17-Year Cathodic Protection Program Has Paid Off	D-35	Dec.
Osborn, Ralph J. Pump Station Remotely Supervised	D-98	May
When Does a Corrosion Program Pay?	D-45	Aug.
Overcash, R. L. Volatility, Viscosity and V. I. Improvers Affect Oil Consumption Strongly	C-46	Nov.
Owen, Roger K. Capacitors Pay Off in Electrical Beam Pumping	B-25	Jan.
P		
Palen, Vern W. X-Ray Answers Knotty Refining Questions	C-7	Jan.
Palm, David C. The Case of the "Packed Up" Troubles!	D-32	July 1
Parker, Marshall E. How Important Are Holidays	D-66	May
Partridge, F. M. Design and Construction of Meter Stations	D-48	Oct.
Pedersen, J. N. Planning and Supervising Workover Jobs	B-73	Sept.
Pennington, Fred H. What You Should Know About Taxes	E-5	Dec.
Peret, J. W. Casing String Design, Handling and Usage	B-33	Nov.
Perkins, James A., Jr. Production Fundamentals—Placing A Well On Production	B-102	July 1
Peterson, Karl W. Electronic Process Control System	C-46	March
Phelps, Sam C. Current Practices in Displacing Liquid Hydrocarbons From Pipe Lines	D-28	Feb.
Pinson, James M. Sweep Efficiencies of Vertically Fractured Five-Spot Patterns	B-95	March
Pipkin, James H. Wanted: Executive Talent	E-14	July 1
Poetker, Rupert H. Squeezing Inhibitor Into Formation	B-29	May
Pope, J. J. Properties of Wyoming Crudes	C-19	Nov.
Porter, J. C. Road Ratings With a Chassis Dynamometer	C-42	Sept.
Powell, W. K. Drilling Fundamentals—Financing the Drilling Operation	B-109	Feb.
Use of a Bidsheet in Making Drilling Bids	B-117	Oct.
Powell, William T. European Competition for Oilfield Equipment	B-176	April
Pownall, John R. Refining in Brief—Union Oil Company Shale Oil Plant	C-50	July 1
Purswell, G. M. Lost Circulation Problems in Completions and Workovers	B-80	June
Pusack, G. W. Refining Fundamentals—Mechanical Division: Chapter II, Selecting Equipment, L. Planned Refinery Lubrication—A Management Opportunity	C-16	Dec.
Q		
Quinn, Harold R. Cleaning Pipe Lines With Chemicals	D-43	Aug.
R		
Ramos, Joe Shutting Off Water Zones in Air Drilling	B-58	Oct.
Randall, T. H. Road Ratings Obtained in a Single-Cylinder Engine	C-50	Sept.
Rasco, John How to Treat the Old Girl	E-24	Sept.
Memo For Your Secretary	E-22	Dec.
Rawe, C. L. Production Fundamentals—Considerations for Single Zone Completions	B-40	Aug.
Redline, R. Leland, Jr. The Reinecke Field . . . Six Years Later	B-99	May
Reed, E. M. Your First Oil or Gas Loan	E-3	July 1
Rehbein, C. A. Two-Stage Fluid Cracker—New Model	C-6	June
Reiss, Royal W. New Triple Completion Technique	B-21	July 1
Multiple Zone Workovers	B-156	Sept.
Rescorla, A. R. Road Ratings With a Chassis Dynamometer	C-42	Sept.
Rice, W. W. Refining in Brief: Sludge Formation and Additives Action	C-45	April
Ricketts, R. D. Building the Best Line Possible Isn't Enough Today!	D-34	Oct.
Riesenfeld, F. C. Proper Materials Selection Can Prevent Cooling Tower Corrosion Problems	D-64	March
Ringer, Francis W. Cathodic Protection Interference Problems—How to Solve Them	D-53	Sept.
Rippie, Charles W. Analytical Methods—Analysis of Mono- and Di-Sulfides in Gasoline	C-18	April
Roach, James R. New Grease for High Temperature—Ultra High Speed Operation	C-8	Feb.
Robbins, F. A. Future Use of Lower Quality Diesel Fuels	C-47	May
Roberts, John Biggest in the Business	E-16	Nov.
Rodgers, C. J. Workover Problems and Their Solutions	B-107	Sept.
Rodgers, D. T. Refining in Brief: Sludge Formation and Additives Action	C-45	April
Rogers, J. D. Improving Fuel Oils Through Addition Agents	C-41	Nov.
Rollins, H. M. Air Drilling Practices in the Permian Basin	B-48	Dec.
Rollins, Henry B. The Worry-Go-Round	A-10	Nov.
Rose, Phillip E. They Use to Blow Their Tops	B-40	July 15
Ross, William K. Biological Oxidation of Phenolic Waste Water	C-44	Oct.

AUTHOR	Page	Month
Rowland, Leslie Orr Canada's 1956 Construction Program Heavy to Gas Lines	D-97	Oct.
Canada's First Major Gas Line	D-44	Dec.
Rowley, Andrew M. Skelly Drills 132—Hits in 132	B-79	Jan.
S		
Sartain, A. Q. What Makes a Man Work	E-1	March
Saxon, Elmer Chemical Plant Safety	C-6	Feb.
Schillmoller, C. M. Stopping Sulfur Corrosion in a Catalytic Reformer	C-33	Dec.
Schomaker, John F. How to Work the Revised Panhandle Formula, Part 1	D-25	May
How to Work the Revised Panhandle Formula, Part 2	D-47	June
Schultz, W. P. The Analysis of Problem Wells	B-30	Sept.
New Injection Method Affords Total Oil Recovery	B-45	Oct.
Schwaderer, W. C. New Viscosity Index En Route to Adoption	C-11	June
New Viscosity Index En Route to Adoption, Part 2	C-12	Aug.
Sekules, Walter Welsh Line Laid by American Methods	D-32	April
World's First Hydrodesulfurizer	C-17	Oct.
Seniff, R. W. Future Use of Lower Quality Diesel Fuels	C-47	May
Shearin, H. M. Production Fundamentals—Formation Evaluation of Oil and Gas Reservoirs	B-21	April
New Injection Method Affords Total Oil Recovery	B-45	Oct.
Sheppard, Allan A. Biological Oxidation of Phenolic Waste Water	C-44	Oct.
Sherwin, J. P. Finding Buried Gas Leaks	D-38	Aug.
Sherwood, Peter W. Oxygenated Petrochemicals, Part 4, Section 2	C-33	Jan.
Oxygenated Petrochemicals, Part 5, Section 1	C-11	May
Oxygenated Petrochemicals, Part 5, Section 2	C-11	Sept.
Petrochemicals Unlimited	C-19	Oct.
Shipp, D. L. How to Use Bonded-Wire Strain Gages, Part 1	D-35	Nov.
How to Use Bonded-Wire Strain Gages, Part 2	D-25	Dec.
Simmons, Jack Sweep Efficiencies of Vertically Fractured Five-Spot Patterns	B-95	March
Smith, F. W. Air Drilling Practices in the Permian Basin	B-48	Dec.
Smith, G. Byron How Accounting Was Set Up	D-57	Oct.
Smith, R. What Happens in a Cat Reformer?	C-37	Oct.
Somers, F. C. Electronic Instrumentation for Atlantic Catformer	C-30	Feb.
Stanich, V. M. Refining Fundamentals—Mechanical Division: Chapter II. Selecting Equipment. L. Planned Refinery Lubrication—A Management Opportunity	C-16	Dec.
Stiles, S. G. Drilling With Air in the Rocky Mountains	B-100	Oct.
Stone, John D. Squeezing Inhibitor Into Formation	B-29	May
Stuart, W. L. Petrochemicals Look for New Instruments	C-46	Sept.
Stumm, J. B. 31.5-Mile Section Completes California Gas Line Looping	D-75	Jan.
Handling Heavy, Sand-Laden Crude	B-102	Feb.
Latest in Automatic Control	D-40	Feb.
Fast Drilling Records Established for Deep Wildcat	B-105	March
Simplicity and Efficiency Highlight Products Stations	D-54	May
French Turbo-Drill Rights Granted to American Firm	B-139	July 1
Practically Noiseless Plant—Serves Suburban Area for SoCal Gas	D-56	July 1
Compressor Station Incorporates New Design Features	D-33	Aug.
Latest Ideas in Rig Hookups	B-30	Nov.
Sturdivant, W. C., Jr. A Simplified Method of Calculating Behavoir of Closed Reservoirs, Part 3	B-58	Jan.
Sublett, James E. Taming Wild Waste Water	C-3	Sept.
Sutherland, D. A. Desulfurizing by Hydrofining "Down Under"	C-37	March
Sweeney, Albert E., Jr. Magnitude of Fluid Injection Operations in the U. S.	B-120	Feb.
The Future of Water Flooding in the U. S.	B-77	May
Swensrud, S. A. Future Oil Demands and Supply Trends	B-36	June
T		
Taliaferro, H. R. Needed: A New Knock Yardstick?	C-38	Sept.
Tarbox, George E. The Helicopter: New Tool of the Petroleum Industry?	B-47	June
Tausch, G. H. Permanent-Type Dual Completions	B-24	March
Permanent-Type Completions and Wireline Workovers	B-39	Sept.
Taylor, Burrell G. Modified Multiple-Well Completion	B-91	May
Taylor, Charles R. Hydraulic Drives for Aerial Cooler Fans	D-59	June
Taylor, Donald M. New Ideas Made Pipelining Faster in 1955	D-17	Jan.
Twin 364-Mile Underwater Lines for Both Oil, Gas Planned for Gulf	D-44	Jan.
Wildcat 52 Miles at Sea in 103 Feet of Water	B-31	Feb.
They're Painting the Coating on Pipe	D-20	March
Transco's Amazing Station 23 Designed for "In-Between" Service	D-35	March
New Method for Laying Underwater Pipe Lines	D-25	April
What's Ahead in Pipelining	D-22	May
The Scorpion Drills Well Number One	B-45	May
New Offshore Diesel-Electric Rig	B-52	Aug.
Horizons Unlimited in Well Workovers	B-21	Sept.
The 2440-Mile Skirmish Line	D-44	Oct.
Polyethylene Plastic Tape Gets First Major Test	D-33	Nov.
New Auto-Pneumatic Lease Programming System	B-28	Dec.
Tharp, J. M. Problems in Completing High-Pressure Gas Wells	B-21	Aug.
Thorn, W. D. What's Ahead for the Permian Basin?	B-21	Dec.
Thurston, D. W. The Knocking Behavior of Fuels and Engines	C-40	June
Tinslar, W. L. Deep Well Fracturing in Headlee Devonian	B-25	June
Tomsic, William J. Determining True Vapor Pressures	C-29	Jan.
Torrey, Paul D. Oil Resources of the United States	B-116	Feb.
True, Robert W. Drilling Rig Maintenance Costs	B-52	Oct.
Tucker, Paul W. LP-Gas Use Breaks All Records	C-44	Jan.
Turner, Marshall C. Production Fundamentals—Multiple-Zone Completions	B-38	June
U		
Ullrich, G. F. Goldfish Are Good Sanitary Inspectors	C-9	Oct.
Upson, C. E. Beacons and Paint	D-67	Sept.
V		
Voorhees, Vanderveer Recent Progress in Petroleum Conversion Catalysts	C-11	March
W		
Walker, L. G. Selective Telemetering Makes Remote Control More Effective	D-92	May
Walsh, E. A. Operation and Maintenance of Gas Turbines	D-46	May
Warne, R. R. When Does a Turnaround Begin?	C-6	April
Warren, Joseph E. The Unsteady-State Behavior of Linear Gas Storage Reservoirs	B-60	Nov.
Waterman, Alan T. Help Wanted: Scientists, Engineers	E-3	Sept.
Weaver, A. G. T. Planning a Logging Program	B-51	Jan.
Wendt, H. E. Deep Well Fracturing in Headlee Devonian	B-25	June
Wheatley, F. W. Desulfurizing by Hydrofining "Down Under"	C-37	March
White, Henry G. Explosive Characteristics of Aviation Gasoline—Analytical Methods	C-41	July 1
White, Joseph A. Radio's Answer to Refinery Communication Needs	C-24	March
Whittinghill, F. T., Jr. A Different Approach to Waterflooding	B-147	June
Wilber, R. R. Properties of Wyoming Crudes	C-19	Nov.
Williams, C. G. How to Get the Best Results From Research	E-11	Feb.
Willis, Marshall El Paso Natural Continues to Expand	D-85	Oct.
Wilson, H. I. Road Ratings Obtained in a Single-Cylinder Engine	C-50	Sept.
Winkler, H. W. Down-Hole Chambers Increase Gas-Lift Efficiency, Part 1	B-87	June
Down-Hole Chambers Increase Gas-Lift Efficiency, Part 2	B-91	Aug.
Woods, W. C. Refining Fundamentals: Mechanical Division: Chapter V. Refinery Layout and Design	C-31	July 1
Y		
Young, Edwin C. Design Considerations for Gas Fired Field Processing Equipment	B-122	Nov.

See other side for contents of

UP-TO-DATE TECHNICAL MANUALS

available as a special service to you

Reprinted from

★*The Pipeline* **ENGINEER**

★*The Refining* **ENGINEER**

★*The Petroleum* **ENGINEER, Drilling-Producing**

★★*The Petroleum* **ENGINEER for Management**

★**Specialized Editions of *The Petroleum* ENGINEER**

★★**Integrated Edition of *The Petroleum* ENGINEER**